

## CLIENT LIST

**IAC has designed and installed Floating Floor Systems for many of the UK and Europe's leading construction companies and contractors including:**

- Wilmot Dixon Construction
- E Turner & Sons
- Wilson Bowden plc
- Barratt Homes plc
- Interserve Project Services Limited
- Canary Wharf Contractors Limited
- Carillion plc
- Schal
- Shepherd Building Group
- Miller Construction
- Hochtief
- Interior Limited





*IAC designed and installed five studios with Acoustic Panel System Floating Floors for Radio City's new station headquarters at the top of the 137m high St. John's Beacon in Liverpool city centre.*




 **United Kingdom**  
IAC GROUP  
HEADQUARTERS


**IAC Ltd**  
IAC House, Moorside Road,  
WINCHESTER, Hampshire, SO23 7US  
Tel: +44 (0)1962 873000  
Fax: +44 (0)1962 873102  
E-mail: info@iac.co.uk


 **IAC Nordic A/S**  
Tel: +45 (0) 36 77 88 00  
E-mail: mail@iac-nordic.dk

 **IAC Boët-Stopson SA**  
Tel: +33 (0) 3 20 05 88 88  
E-mail: info@boet-stopson.com

 **IAC GmbH**  
Tel: +49 (0) 2163 99910  
E-mail: info@iac-gmbh.de

 **IAC Stopson Italiana SpA**  
Tel: +39 (0) 02 48 44 22 1  
E-mail: info@stopson.it

 **IAC Stopson Española SA**  
Tel: +34 (0) 9 33 21 66 84  
E-mail: stopson@stopson.com

 **IAC Inc**  
Tel: +1 718 931 8000  
E-mail: info@industrialacoustics.com

[www.iacbuildingservices.co.uk](http://www.iacbuildingservices.co.uk)

©Copyright IAC



**IAC's high acoustic performance Floating Floor Systems provide permanent, maintenance-free and cost-effective noise control solutions for a wide range of applications.**

- Optimum sound reduction
- Minimum construction weight
- Panel Mount Systems
- Jack-Up Systems
- Modular Acoustic Panel Systems
- Polystyrene former technology for cinema applications
- Acoustically-rated and certified solutions
- Complementary acoustic products including doors, windows, absorbers and tuners, isolating wall ties and hangers



floating floors

## IAC - EXPERIENCE AND QUALITY

IAC has over 50 years' experience of noise control engineering and has supplied literally hundreds of floating floors on a wide variety of projects across Europe and the USA. We offer a complete turnkey service comprising design, manufacture and installation.

Quality control is a vital feature of IAC's operations at every level. All products have certified acoustic ratings.



IAC is a BS EN  
ISO 9001 quality  
registered company

Certificate No. 932300

IAC is a leading supplier of noise control solutions to the construction industry world-wide. Established in 1949, IAC's manufacturing and technical expertise is second-to-none. This combines with best-practice project management skills to deliver high performance products and systems, on time and within budget.

## THE CONCEPT

A floating floor system is composed of two mass layers separated by an airspace and decoupled from one another with resilient mountings. This design principle will, with proper flanking noise control, provide much greater values of sound insulation than can be achieved with single solid floor slabs.

The result is a high performance acoustic floor at a relatively low weight that can be tolerated by modern building structures.

For a typical installation, IAC will install the floor isolation system and supervise the pouring of concrete supplied by others.

## 3 MAIN TYPES

### Panel Mount Systems

These are the standard type of floating floors. They incorporate neoprene, glass fibre, cork or spring isolators which provide an acoustic break and a fixed air gap between the 'floating' concrete floor slab and the structural building slab.

### Jack-Up Systems

These have a similar construction to the Panel Mount System with the addition of adjustable isolators providing the ability to vary the air gap between the 'floating' concrete floor slab and the structural building slab.

### Acoustic Panel Systems

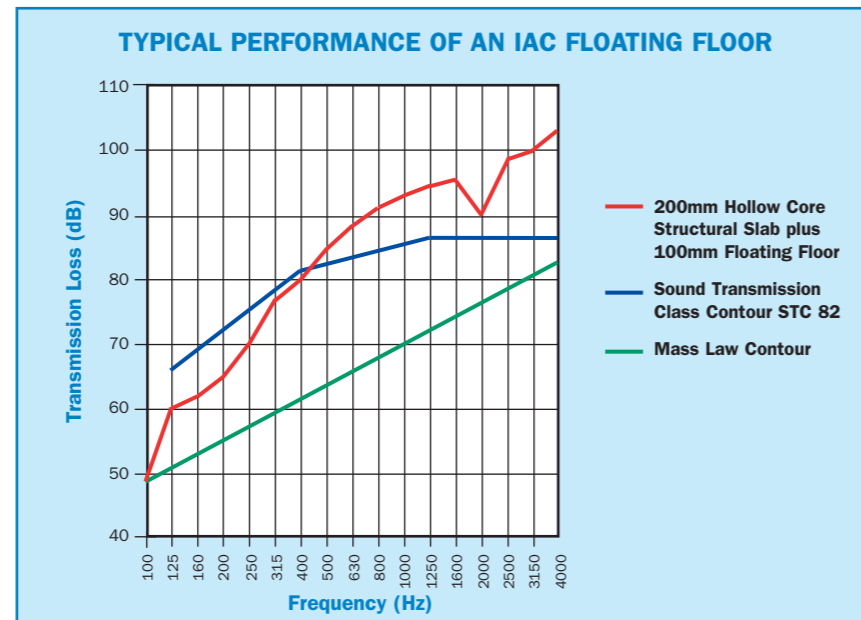
These systems incorporate IAC modular acoustic panels in lieu of the concrete floor slab. Using pre-fabricated modular panels removes the need for wet trades on site and enables the floor to be dismantled and re-located if required.

## FLOATING FLOORS

IAC engineers are available to assist with the selection and specification of an appropriate floating floor system. It will be necessary to determine the noise level of the sound source in order to calculate the degree of sound insulation required and whether isolated walls will also be necessary.

The table opposite will, however, provide a useful guide. Generally, rubber isolators will be suitable for most installations but in cases of high impact noise, e.g. a gymnasium in the upper floor of a sensitive building, spring isolators may be the preferred choice for the floor system.

The graph below indicates sound reduction values that can be achieved with a concrete floating floor at just 1/8th the weight of an equivalent single solid floor.



## CINEMA APPLICATIONS TECHNOLOGY

Sloping floating floors for cinema auditoria and walkways, where concrete has to be poured at an angle, present particular construction challenges. IAC has developed a technique using specially designed, structural polystyrene formers that can be stepped in excess of 400mm. The principal benefits of polystyrene are that it is low cost, light, strong and easily manoeuvrable, so saving both time and money in the construction process.

*"They were recommended to us by acoustic consultants we use and we were very pleased with the job all round. They were very pro-active in pricing the job and their tender came in at the most competitive. It was a Design and Build job so the fact that there were very few variations to the contract was a benefit to us. They were a helpful team right from the start and they got the job done on time."*

Keith Halls, Senior Quantity Surveyor, Miller Construction - commenting on the Concord Centre cinema complex project, Shepherd's Bush, London.

## FLOOR SELECTION GUIDE

Fans	A.H.U's	Pumps	Boilers	Chillers	Diesel Generators	Plantroom Levels		Treatment	NR Level Required in Area Below Plantroom				
						dBA	NR		NR45	NR40	NR35	NR30	NR25
					20 - 400kW	106	NR100	Floating Floor	YES	YES	YES*	NA	NA
						101	NR95	Isolated Walls	YES	YES	YES*	NA	NA
3m³/s - 20m³/s	3m³/s - 20m³/s	5 - 7kW	Up to 250kW	Packaged Screw or Recip	20 - 400kW	96	NR90	Floating Floor	YES	YES	YES	YES*	NA
								Isolated Walls	NO	YES	YES	YES*	NA
						92	NR85	Floating Floor	NO	YES	YES	YES	YES
								Isolated Walls	NO	NO	NO	YES	YES
						87	NR80	Floating Floor	NO	NO	YES	YES	
						82	NR75	Isolated Walls	NO	NO	NO	NO	
						77	NR70	Floating Floor	NO	NO	NO	NO	
						72	NR65	Isolated Walls	NO	NO	NO	NO	

NOTES: 1. \*Denotes marginal situation. 2. Parent Slab assumed to be 150mm thick in all cases.

## APPLICATIONS

IAC supplies floating floors for a wide range of applications.

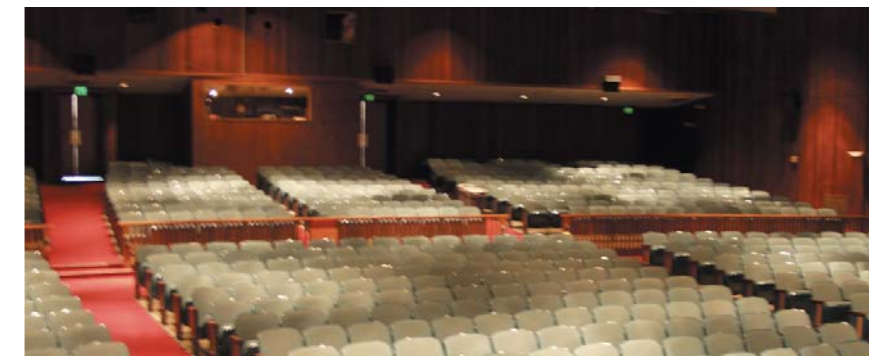
- Cinemas
- Auditoria
- Casinos/nightclubs
- Bowling alleys
- Sports halls
- Studios
- Audiology suites
- Gymnasiums within public, residential or corporate premises
- Shooting ranges
- Music practice rooms
- Health & Fitness suites
- Plant and machinery rooms



Music Practice Room



Gymnasium



Auditorium



Studio