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SPECIFICATION

(visit www.vibro-acoustics.com for complete specification)

The System (Formwork)

The Floating Concrete Formwork Floor System shall incorporate engineered isolation pads, fiberglass perimeter isolation board, and plywood formwork placed on top of the isolation pads, junction connection plates, and polyethylene sheeting for temporary waterproofing placed over plywood formwork, low density fiberglass, junction plates, and perimeter isolation material.

The System (Jack-up)

The Floating Concrete Jack-up Floor System shall incorporate engineered isolators contained within a housing complete with jack-up bolt, perimeter isolation, 2 layers of bond breaker, reinforced concrete and perimeter caulking.

Submittals

1. Submitted Floating Floor design drawings and loading calculations shall be stamped by a registered PE or P.Eng.
2. Submittal shall include documentation showing supplier has not less than 10 years experience in similar installations.
3. Submit certificate showing material compliance with required resonant frequency.
4. Submit certificate showing material compliance with static and dynamic load requirements.
5. Submit certificate showing isolator material compliance with appropriate AASHTO standards.
6. Submit a reference list of worldwide projects supplied over at least a continuous 25 year period.

Materials

1. Isolation pads shall be AASHTO neoprene, nominally 2" thick.
2. The dynamic resonant frequency of the isolation pads shall not exceed 14 Hz at the operating deflection.

APPLICATION FOR FLOATING FLOORS

Possible building applications:

- Symphony and opera halls
- Recording studios
- Theaters
- Libraries
- Galleries
- Auditoriums
- Gymnasiums and squash courts

Possible system applications:

- Chiller rooms
- Generator rooms

Floating Floors

FF

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DESCRIPTION

Vibro-Acoustics' Floating Floor systems reduce the need for massive building construction by providing sound transmission loss between two spaces—for example, between a mechanical room and the noise-sensitive area above or below it. The composite construction of the Floating Floor system with isolators and air space has a sound transmission loss equivalent to a much thicker and heavier concrete floor slab.

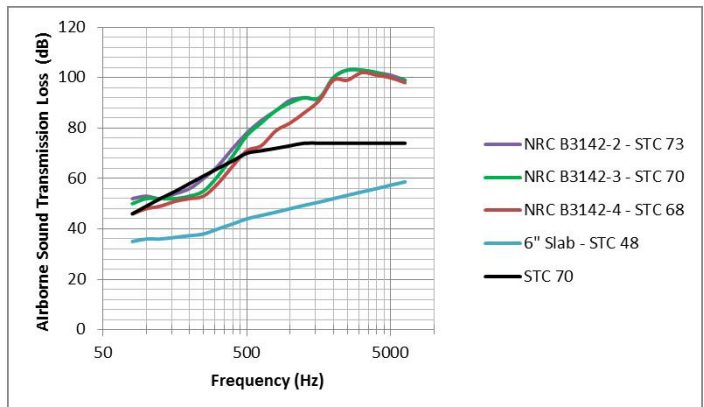
The Form Work Floating Floor system consists of engineered isolators, perimeter isolation board, form work, polyethylene waterproofing sheet and optional fiberglass blanket.

The Jack-Up Floating Floor system consists of isolators contained within housings complete with reinforcing rod chairs and lifting bolt, perimeter isolationboard, and polyethylene bond breaker.

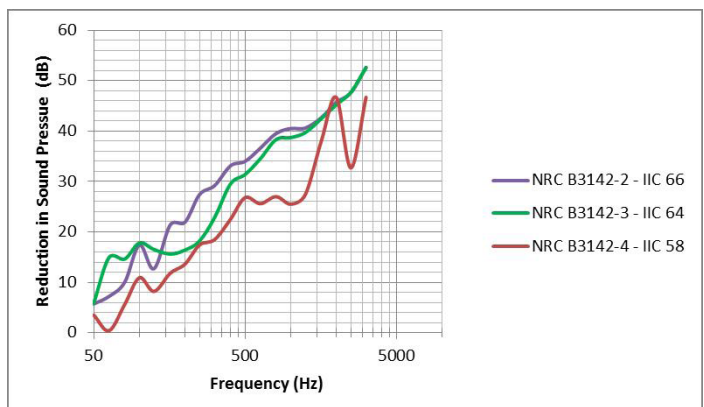
PERFORMANCE

A typical monolithic concrete structural floor slab has a Sound Transmission Class (STC) rating of approximately 50. Increasing slab thickness adds little to the STC rating of the floor. In contrast, a well installed Floating Floor system can increase the STC rating by 20 to 25 points with a comparatively low addition to total weight.

Acoustic performance for standard Floating Floor designs varies slightly as shown on the charts below showing the independent test data for three typical configurations. All tests were conducted with a 4" (102 mm) floating slab mounted on isolators forming a 2" (51 mm) air gap over a 5.75" (146 mm) continuous structural slab mock-up. Contact us for other configurations.



Floating Floor transmission loss data from testing to ASTM E90 at the National Research Council of Canada laboratories



Reduction in normalized impact sound pressure level relative to the 5.75" (146 mm) concrete structural slab