

Ambulatory Care Center

Leuven, BE



Case Study



Property Owner
UZ Gasthuisberg



Main Contractor
CIT Blaton



Acoustic Consultant
Daidalos



Architect
THV (AAPROG + Polo +
Boeckx + De Klerck

OVERVIEW

Within the university hospital campus "Gasthuisberg" in Louvain, there's a new building next to the urgencies, where the audio rooms are located. The aim is to test patients on their hearing capabilities with the newest technologies in their field, this being the reason why the acoustic consultant Daidalos imposed high level acoustic isolation between all the spaces here. The rooms are made following the "box-in-box" principle.

Stravifloor Batten

- Resilient floor batten system for the support of wet or dry floating floors with anchoring system to the base structure
- Can be used on inclined base structures



SOLUTION

The concrete floor of every audio room is floating on resilient [Stravifloor Batten](#) floor battens. These battens result in an air void of approximately 100 mm, which allows the air stiffness in the floor system to become less dominant. Located between the floor battens is an absorption layer to avoid standing wave effects.

The light gypsum walls are installed on the edge of the floating floors and acoustically decoupled from the structural ceiling by means of the [Stravilink WallFix](#) principle, to avoid any direct stiff contact.

The ceiling is constructed from gypsum boards which are acoustically decoupled from the ceiling by high performing spring-dampeners [Stravilink PHR](#). For reasons of fire-resistance, the maximum load per hanger is limited, in order to take up the relatively high mass of the lowered ceiling.

Additional difficulty consists in the integration of a "Faraday cage" in the box-in-box setup, being the reason why all metal connections had to be treated with the highest care, asking for very specific and complex solutions for the building nodes. One of the rooms occupies a test chair, this being "gigatorque" and is predominately used to test patients during a certain rotation. This chair has been installed on [Stravimech Bearing](#) pads via a specific anchored steel baseplate incorporated within the reinforced concrete plate.



AT A GLANCE

CHALLENGES

- Integration of a "Faraday cage" in the box-in-box setup. All metal connections had to be treated with the highest care

BENEFITS

- Highly adaptable solution with multiple variations
- Quick & easy installation
- Can support a variety of formwork such as timber, metal decking or cement particle board