Sports Hall Lingarnet Malmö

Malmö, SE

Making your world a quieter place

Case Study

Property Owner
Malmö Stadsfastigheter

Main Contractor
NCC

Acoustic Consultant
Soniqa Akustik AB

Architect
New Line Arkitekter AB

OVERVIEW

Lingasrnet Sports Hall is a state-of-the-art, full-sized sports hall spanning approximately 3 500 m^2 (37,673 ft^2).

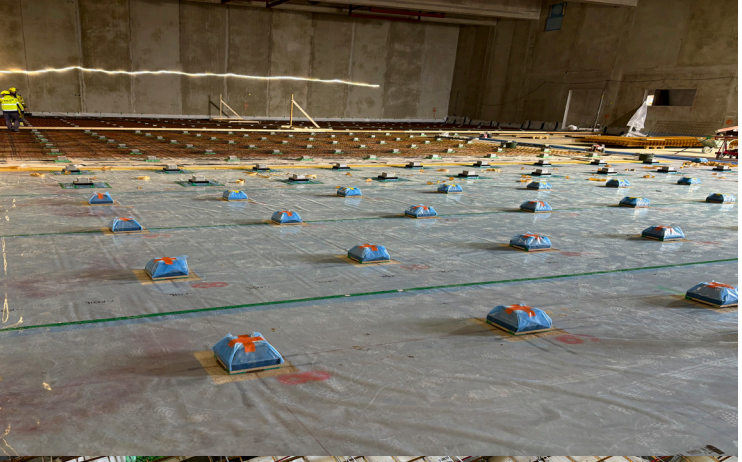
The facility will include a mobile grandstand and dedicated spaces for recreational activities.

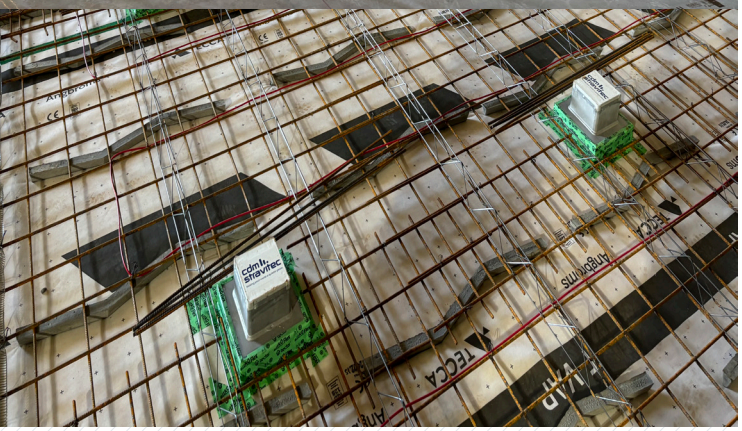
Constructed over two levels, the sports hall will occupy the upper floor, while the ground floor will accommodate a youth center and changing rooms.

The building will be constructed using a combination of cast-in-place and prefabricated elements, optimizing efficiency and structural performance.

Stravifloor Jackup-R

Jack-up floating floor system with reinforced steel boxes cast into concrete.
Once dry, the isolated slab is raised off the structure to the required void depth.





AT A GLANCE

CHALLENGES

- Preventing noise and vibration transfer from the sports hall to the ground-floor facilities.
- Managing heavy, non-uniformly distributed loads from sports activities and spectators.
- Supporting high loads before slab elevation, allowing use as a storage/work area during construction.

BENEFITS

- Allows insulation placement in the air cavity to prevent standing waves and high-frequency noise breakthrough.
- Guaranteed decoupling from the subfloor.
- No need to consider the bending stiffness of formwork panels; focus is on the reinforced floating slab, load capacity of the boxes, and spacing, ensuring minimal contact points.

SOLUTION

Since the sports hall is designed to occupy the upper floor, ensuring the comfort of users in the ground-floor facilities, such as the youth center and changing rooms, is a key priority.

Covering an area of 1 200 m^2 (12,917 ft^2), the sports hall is used for a variety of high-impact recreational activities and sports, often involving a large number of participants.

Given this dynamic use, effective acoustic insulation was essential to allow both floors to function simultaneously without compromising user experience or operational comfort.

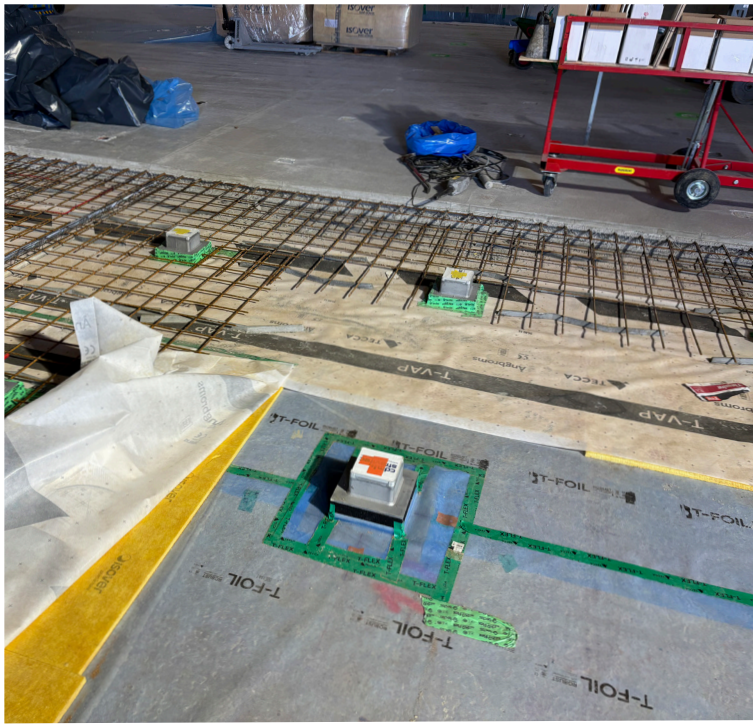
To meet these requirements, CDM Stravitec supplied a Stravifloor Jackup-R system with springs, delivering exceptional acoustic performance.

The system is designed with a natural frequency of 15 Hz at Acoustical Design Load (ADL) and optimized to minimize contact points, effectively reducing the risk of acoustic bridging.

Its high load capacity allows for greater spans, further enhancing sound isolation between levels.

1 200 m^2 (12,917 ft^2)

Stravifloor Jackup-R



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