

Amphibious homes, Maasbommel, The Netherlands



In a recreation area located outside the dikes near Maasbommel in Gelderland Province, 32 amphibious and 14 floating homes have been realised. The amphibious homes are fastened to flexible mooring posts and rest on concrete foundations. If the river level rises, they can move upwards and float. The fastenings to the mooring posts limit the motion caused by the water. The floating homes are lowered when the water level drops and come to rest on concrete foundations.

The floating and semi-floating homes are similar in construction: a concrete barge with a relatively light timber-frame construction on top. The concrete barges weigh 72 tonnes each, while the timber-frame constructions weigh around 22 tonnes. The low centre of gravity gives added stability. The concrete barges are made from ordinary concrete with an aggregate to render them waterproof. The joints are reinforced with an additional water-resistant sealing strip. The barges are approximately 2 metres high, and as such can only be used as basements or, if part of the home is designed with a split level, as bedrooms.

Projections indicate that the water level will rise by more than 70 cm once every five years, causing the homes to rise accordingly. The homes can handle fluctuations of up to 5.5 metres. [Pötz et al., 2009]

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