

VIEW

REFERENCE
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DAXING

AN AIRPORT OF SUPERLATIVES

HIGH-RISE BUILDINGS IN WOOD

IN FASHION
ALL OVER THE WORLD

SUSTAINABLE HIGH-RISE BUILDINGS

REACHING FOR THE SKIES

That timber is becoming increasingly important as a building material is commonplace nowadays. However, what is noticeable is that these buildings are being designed taller and taller – and not only in metropolises such as New York, Dubai or Shanghai. Traditional “wood countries” have now also overcome their reservations when it comes to wooden high-rise buildings.



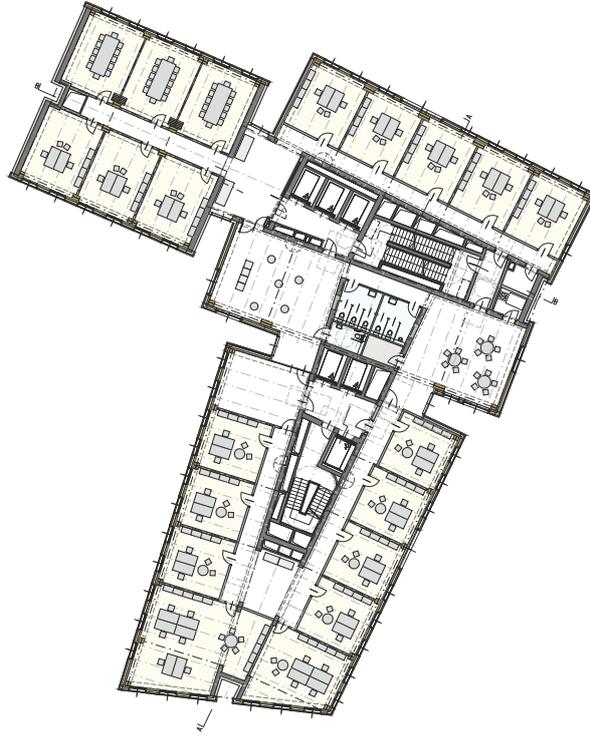
At 85.4 metres, Mjøstårnet in the Norwegian town of Brumunddal currently holds the world record as the tallest wooden high-rise building (see page 20 for more information). Due to the sheer number of planned building projects, it is only a matter of time before this record is broken.



HOHO WIEN, AUSTRIA

FLEXIBLE AND INTELLIGENT





By 2028, apartments for more than 20,000 people and almost as many workplaces will be built here on a former airfield in the north-east of Vienna. HoHo Wien is the flagship project of the new Aspern Seestadt urban development, and not only due to its height of 84 metres.

HOHO WIEN

Building owner: Kerbler Holding GmbH

Architecture: Rüdiger Lainer + Partner Architekten ZT GmbH

Completed: 11/2019

GEBERIT KNOW-HOW

Mepla supply system

Pluvia roof drainage system

CleanLine shower channel

Huter installation elements

Once humming with the sound of propeller planes and airships taking off and landing, things came to a standstill here with the closure of Aspern airfield in 1977. It was only decades later, in 2007, that the master plan for this new district was finally approved by parliament in Vienna.

CREATION OF A NEW SMALL TOWN

The master plan was based on studies made by architect Rüdiger Lainer in the 1990s. His analysis of the topography and unique historical context of the site was used to a certain extent as a charter for the plans that followed, which have since been vigorously pursued. The charter contained the rules to be followed for future activities and building structures. Lainer's study emphasised the need for the greatest possible openness and flexibility on one hand, and creative anchor points for identities and identification on the other. →

Spread over 24 storeys, HoHo Wien features a range of other uses in addition to office space and serviced apartments, including a restaurant, gym, health and beauty facilities, and a hotel.



The total amount of wood used in HoHo Wien is 4,350 m³ – an amount that grows back in Austria's forests within 77 minutes, according to the developers.

A TOWER WITH A FAR-REACHING IMPACT

The most striking anchor point of the development is clear – HoHo Wien. That this building became reality is down mainly to the hard work of trained construction technician Caroline Palfy. At a height of 84 metres, this 24-storey building built using hybrid construction has a total floor space of 25,000 m² and is a central, particularly sustainable landmark in the new urban development. Its office space stands out due to a special feature: the floor plan can be subsequently modified with minimal effort, meaning the rooms can be adapted to meet changing needs.

A VARIETY OF USES

In addition to innovation and technology, one aspect in particular was focused on when designing the centre of the urban development – the social interaction that takes place in the huge range of different uses. Nobody wanted to build a sleepy backwater, nor a business district that is dead in the evenings and on the weekend. This is why HoHo Wien features a range of other uses in addition to office space and serviced apartments, including a restaurant, gym, health and beauty facilities, and a hotel.



“Right from the outset, I knew that if I was going to use wood, it would have to be visible. I have never understood why a wonderful building material such as wood is often hidden behind plasterboard.”

Caroline Palfy

Managing Director at cetus Baudevelopment GmbH

LIGHTHOUSE JOENSUU, FINLAND

A SHINING EXAMPLE

With timber construction booming, particular attention has to be paid to the topic of building statics. However, there is also a demand for innovative solutions in terms of the technical building systems used. Such solutions were found and successfully implemented in the Finnish town of Joensuu. →

LIGHTHOUSE JOENSUU

Building owner: Opiskelija-asunnot Oy

Architecture: Arcadia Oy
arkkitehtitoimisto

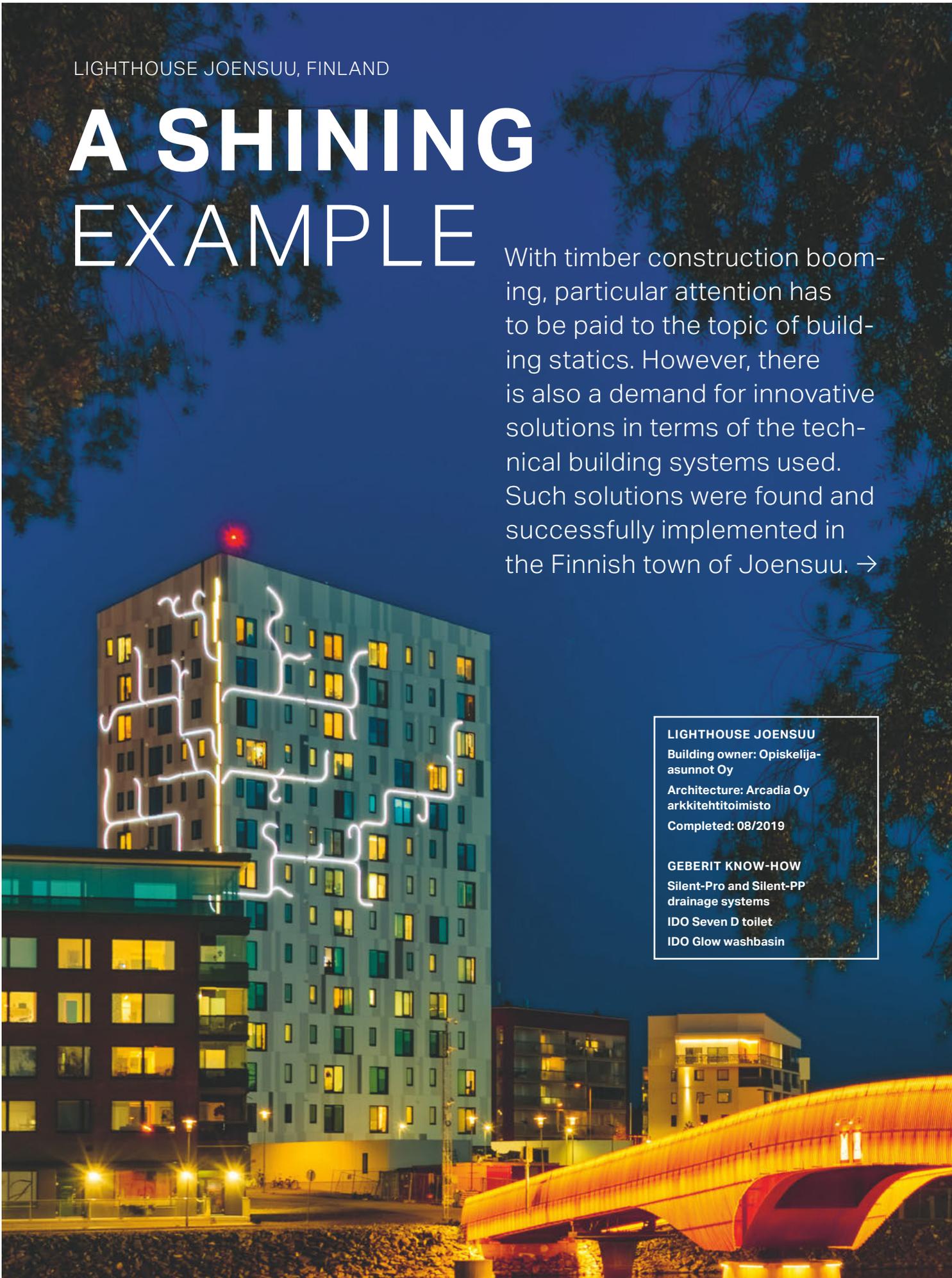
Completed: 08/2019

GEBERIT KNOW-HOW

Silent-Pro and Silent-PP
drainage systems

IDO Seven D toilet

IDO Glow washbasin





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Lighthouse Joensuu offers comfortable living space for up to 700 students.



“A drainage system from a single source with components that are perfectly coordinated with one another results in reliability on a whole new level.”

Samuli Sallinen
Architect at Arcadia Oy arkkitehtitoimisto

Further scientific advancements are needed before wooden skyscrapers become the norm. However, even today there is no shortage of adventurous plans for towers that will soar 300 metres and more into the sky.

WOOD AS FAR AS THE EYE CAN SEE

Compared to such visionary plans – not to mention already completed projects such as Mjøstårnet and HoHo Wien – the 48-metre-high Lighthouse Joensuu looks relatively modest at first glance. However, unlike its (in many cases) much taller competitors, the student residence is made entirely of wood. To be more precise, it consists of a combination of cross-laminated timber (CLT) for the floor elements and laminated veneer lumber (LVL) for the wall elements.

OPTIMAL SOUND INSULATION

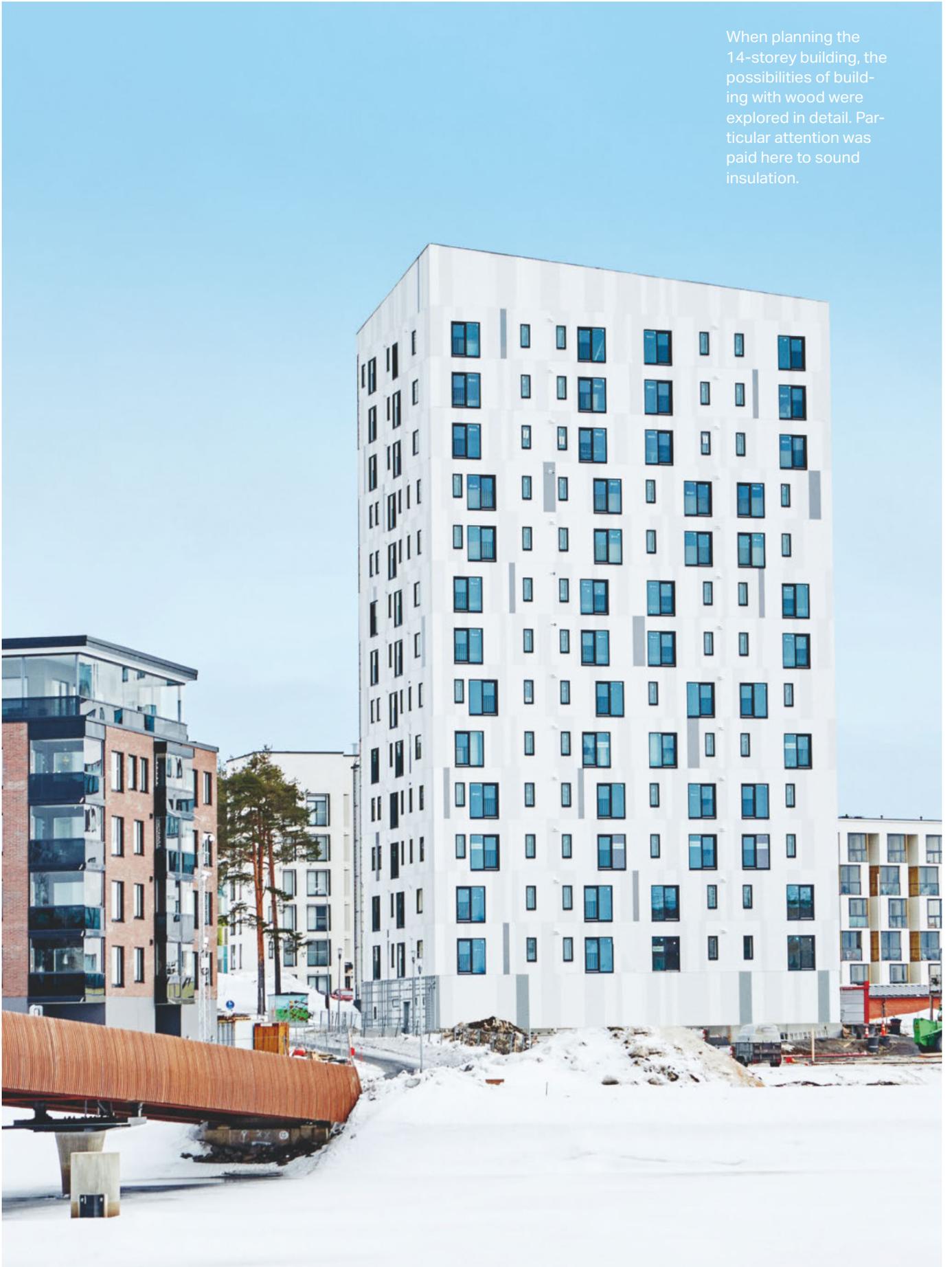
The compact 14-storey building has a floor space of 3,772.5 m² and offers comfortable living space for up to 700 students. During planning and implementation, there was a focus on sound insulation. In order to meet the strict regulations and cope with the limited space in the installation ducts, the people behind the project opted for the Silent-Pro drainage system, which is both highly sound-insulating and easy to install.



SILENT-PRO

Geberit Silent-Pro represents the state of the art when it comes to building drainage. The plug-in system achieves its outstanding sound insulation primarily due to three factors: the high inherent weight of the product material, targeted reinforcements on the fittings, and a consistent decoupling from the building structure thanks to special system pipe brackets.

When planning the 14-storey building, the possibilities of building with wood were explored in detail. Particular attention was paid here to sound insulation.



MJØSTÅRNET

Building owner: AB Invest AS

Architecture: Voll Arkitekter

Completed: 03/2019

GEBERIT KNOW-HOW

Duofix TEK installation system

Mapress supply system



The total floor space of 11,300 m² is spread over 18 storeys. The building features a mixture of uses, with a hotel and restaurant in addition to apartments and offices. A neighbouring building also houses a swimming pool.

MJØSTÅRNET, BRUMUNDDAL, NORWAY

A LAKESIDE VIEW

It is well known that Norwegians are skilled at carpentry; even the Vikings built wooden longhouses. However, instead of being built long, buildings are nowadays increasingly being built high – very high – into the sky.

Brumunddal is located north of Oslo in Hedmark county, an area dominated by the forest industry. Selecting this small town as the site for the pioneering Mjøstårnet project was thus seen as a clear signal. By obtaining wood locally and processing it into building material, the goal of the tower on Lake Mjøsa was to cause a sensation as a model for green building. And cause a sensation it most certainly did.

Even more eye-opening than the location is the building's impressive height – at 85.4 metres, Mjøstårnet currently holds the world record as tallest wood building. Scaffolding was not used during construction. Instead, the elements made of glued laminated timber (glulam) of four storeys each were preassembled directly on site and then hoisted into place using a crane.

After two years of building work – one-and-a-half years if excavation work is not taken into account – Mjøstårnet opened its doors in March 2019.



DUOFIX TEK

In order to meet the extremely strict Norwegian guidelines concerning the tightness of water-bearing installations, Duofix TEK was developed – an installation element with concealed cistern equipped with a waterproof shell.