StoraEnso

Partner of Stora Enso

WOODCON

Mjøstårnet
Brumunddal, Norway

The Mjøstårnet Tower worlds tallest timber tower from 2019-2022

Under the motto “sustainable for the next generation”, the world's tallest timber (at the time) was built in on the lakeshore of Brumunddal, Norway, a small city with 10,000 residents, 140km north of Oslo. The name “Mjøstårnet” is Norwegian and means “The tower of Lake Mjøsa”. The surrounding areas of Brumunddal are famous for its forestry and wood processing industry.

The 18 floor mixed use project has a a total height of 85.4 meters and includes apartments, a hotel and offices. The structure is anchored in the rock 56 m below the earth's surface. Each floor is about 640 square meters. The total area of the tower is about 10,500 square metres with an additional 4,500 square metres for the swimming pool area.

Above the entrance story are building services and conference floors. Five office stories and a four-story hotel with 72 rooms. Thirty-three residential units with balconies overlooking the lake are on floors 12-16. The top two floors are divided into three further residential units, an exhibition room and a public viewing terrace on both the 18th and 19th floor.

Planning began in 2015, and by the end of 2018, Stora Enso had supplied 613 m³ of cross-laminated timber (CLT) as a Sylva kit of parts to construct what was then the world’s largest wooden building at the time. Sylva CLT Walls Floor and Roof elements were used to build the stairwell, lift shaft, and swimming pool walls of the record-breaking structure.

Since the main vertical/lateral structural elements and floor spanning systems of Mjøstårnet are made from mass timber, the building is considered an all-timber structure. Concrete slabs were only used on the top seven floors.

Mjøstårnet was constructed four storeys at a time in five stages. Internal scaffolding and a large crane were used to hoist the prefabricated sections and floor slabs into place.

The final phase of construction was somewhat “spontaneous” because the building was initially designed to be 81 m high. However, during the assembly of the topmost load-bearing elements, it was decided to add an extra 4 m, bringing the total height to 85.4 m.

The mixed-use building (hotel, apartments, and restaurant) remained the tallest wooden building until 2022, when it was surpassed by the Ascent MKE in the US.

Awards

New York Design Awards 2018 Gold

Norwegian Tech Awards

CTBUH

Structure Award 2021 Award of Excellence

Life Safety Design Award 2022 Winner 2022

Ringsaker Prize

StoraEnso

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New York Design Award 2018 Gold

Ringsaker Prize

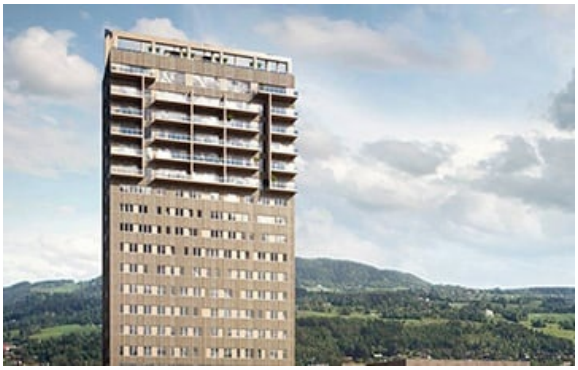


Photo credit: Moelven

General

Delivery year

2019

Building type

Multi Residential

Area (m²)

15,000

Storeys

18

StoraEnso

Products

Products and Services

Sylva™ CLT Floors and Roofs, Sylva™ CLT Walls, Preinserted lifting devices

Product quality

PEFC certified. Surface qualities: NVI, VI, BVI

Product volume (m³)

613

Team

Partner of Stora Enso

Woodcon AS

Developer

AB Invest AS

Architect

Moelven
Voll Arkitekter

Structural Engineer

Moelven Limtre

Main contractor

HENT AS

Specialist Timber Subcontractor

Woodcon AS

Timber Engineer

Sweco