

DK_Copenhagen K_Vandflyverhangaren

Image 01:
 South façade
 © Sandra Gonon



Image 02:
 Interior
 © Sandra Gonon



Image 03:
 Indoor pool
 © Sandra Gonon



Building Specifications

Address	Margretholmsvej 2,1432 Copenhagen K, Denmark
Building Category	Office
Year of Construction	1921 (renovated in 2001)
Special Qualities	n/a
Location	56° northern latitude, 13° eastern longitude. Located in an industrial/residential area surrounded with open water to west and industrial buildings to north, new residential multi-storey building from east and some free land to south
Climate	Cfb (warm temperate climate, moist with adequate precipitation in all months and no dry season, warm summer with the warmest month below 22°C)

Vent. Cooling Site Design Elements (Solar Site Design and Wind Exposure Design, Evaporative Effects from Plants or Water)

Exposed to wind coming from the open water on the west side of the building

Vent. Cooling Architectural Design Elements (Form, Morphology, Envelope, Construction &Material)

Form. Semicircular hangar type building

Morphology: The main part of the building is designed as an open plan office with some suspended decks in the central part. Cellular offices, meeting rooms, WC's and technical room are located along the both sides of the building. Total floor area is 2,550 m²

Envelope: Large glazed facades to south and north. Automated skylights placed on the semicircular roof are used to provide daylight and serve as openings for natural ventilation system

Construction: Heavy mass building

Vent. Cooling Technical Components (Airflow Guiding Components, Airflow Enhancing Components, Passive Cooling Components)

Airflow Guiding Components: The building is primarily ventilated with natural ventilation. However, half of the meeting rooms are mechanically ventilated. The building is ventilated by stack ventilation using the windows in the south façade as inlets and roof openings as outlets. Night cooling strategy is used in warm periods

Actuators, Sensors and Control Strategies

Temperature and CO₂ sensors inside the building

Weather station measuring temperature, humidity, CO₂, wind, rain and solar irradiation on the rooftop

NV Advance™ ventilation control system is used

IEA EBC Annex 62 Ventilative Cooling

Building Energy Systems (Heating, Ventilation, Cooling, Electricity)
Hybrid ventilation Information about heating and electricity is not available
Building Ownership and Building Facility Management Structures
Danish Design School and the School of Architecture are renting the building
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n/a
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