

AT_Korneuburg_Justizzentrum

Image 01:

Exterior view ©Harald A. Jahn



Image 02:

Exterior view ©Harald A. Jahn



Image 03:

Interior view ©Harald A. Jahn



Building Specifications

Address	Landesgerichtsplatz 1, 2100 Korneuburg, Österreich
Building Category	Office/Other
Year of Construction	2012
Special Qualities	Passive House
Location	48° northern latitude, 16° eastern longitude, 168 m above sea level, located at the outskirts of a town with a population of approximately 12.000 in the lowlands of Lower Austria.
Climate	Cfb (warm temperate, fully humid, warm summer) (monthly mean temperature below 22 °C, at least seven months with a monthly mean temperature above 10 °C)

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

n/a

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

Morphology: The office spaces are situated around three atriums. The roof windows of the three atriums can be opened to create a suction effect for the associated offices.

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

Airflow Guiding Components: Roof windows in the atriums can be mechanically opened and the windows of the associated offices can be opened manually.
 Airflow Enhancing Components: Effect of the atria.

Actuators, Sensors and Control Strategies

Sensors: Interior temperature sensors are installed
 Control Strategies: The ventilation openings are controlled manually and are opened automatically to prevent overheating of the atrium.

IEA EBC Annex 62 Ventilative Cooling

Building Energy Systems (Heating, Ventilation, Cooling, Electricity)
Heating and Cooling: Geothermal energy is used for heating via heat pumps and with free cooling for cooling. A 500 kW gas boiler is installed as backup. The heat is distributed by floor heating systems and by heating the supply air of the ventilation system. Ventilation: Mechanical ventilation with heat recovery for all offices.
Building Ownership and Building Facility Management Structures
Owned by BIG, Bundesimmobilien Gesellschaft , rented by the BMJ, Bundesministerium für Justiz Architect: Dieter Mathoi Architekten, DIN A4 Architektur
Acknowledgements
Staatspreis für Architektur und Nachhaltigkeit 2014 The first passive house of this size and for this use.
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