

AT_Feldkirchen_Ecoport Saubermacher

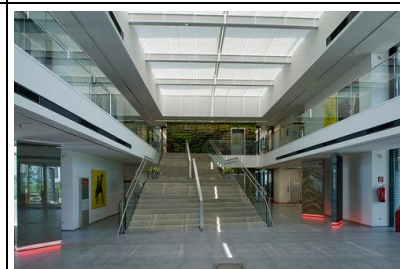
Image 01:
Exterior view ©Jorj Konstantinov



Image 02:
Exterior view ©Helmut Tezak



Image 03:
Interior view ©Helmut Tezak



Building Specifications

Address	Hans-Roth-Straße 1, 8073 Feldkirchen, Österreich
Building Category	Office
Year of Construction	2011
Special Qualities	n/a
Location	47° northern latitude, 15° eastern longitude, 342 m above sea level
Climate	Cfb (warm temperate, fully humid, warm summer), monthly mean temperature below 20 °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: A centrally situated atrium is ventilated naturally during night. The shading of the atrium is realised by semi-transparent photovoltaic elements and a automated inner shading screen to reduce solar gains. For night ventilation air-inlet flaps at the covered terrace and air-outlet flaps in the atrium roof open automatically. The terrace is covered, thus no rain protection for the air-inlet flaps is necessary.

Construction & Material: The fairfaced concrete ceiling and floor offer significant thermal mass.

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

Airflow Guiding Components: night ventilation flaps at the covered terrace and in the atrium roof

Airflow Enhancing Components: For the purpose of night cooling the mechanical ventilation in the offices is forced up to three air changes per hour. In the atrium night ventilation is driven by buoyancy and random wind effect only.

Actuators, Sensors and Control Strategies

Sensors and Control Strategies: The natural night ventilation is controlled by time and temperature.

IEA EBC Annex 62 Ventilative Cooling

Building Energy Systems (Heating, Ventilation, Cooling, Electricity)
Heating: Groundwater with heat pump and district heating Cooling: Free cooling using ground water – and Ventilative Cooling Hot Water: Solar Panels Electricity: PV at the atrium roof and on the facade
Building Ownership and Building Facility Management Structures
Building Owner: Roth Privatstiftung Facility Management: Saubermacher Architect: BRAMBERGER architects; Building technology: DIEHAUSTECHNIKER
Aknowledgements
klimaaktiv certificate
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