


WP 3 - D19 (FEWE, POLAND)

Best practice example No. 1

General data

Name of the building :	Exbud Business Centre in Kielce
Country :	POLAND
Address :	Exbud Skanska S.A. , Aleja Solidarności 34 25-323 Kielce Poland
Google Earth link (50 m) :	
Google Earth coordinates :	
Building owner/user :	EXBUD SKANSKA S.A.
Building type:	Business centre, office building, exhibition halls, congress hall, bank, hotel-recreation and catering complex

Building information

Picture of the building: (103 mm width)	
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<p>Description of the building: (architecture/construction) <i>Please describe location insulation, window efficiency, building materials → summarize highlights of building</i></p>	<p>Energy efficient building complex of the EXBUD company buildings, with total capacity of 100.000 m³ includes various energy-efficiency oriented solutions based upon ground heat exchangers and heat pumps. Heat is supplied from the ground by means of direct and tubular heat exchangers and from surplus heat. Further energy savings derive from use of automatic control systems for ventilation and air exchange parameters and temperature control in specific rooms and periods of time.</p>
<p>Year of construction</p>	<p>1991</p>
<p>Total gross area (m²)</p>	<p>19 896</p>
<p>Volume (m³)</p>	<p>100 000</p>
<p>No. of floors</p>	<p>15</p>
<p>Glazed surface level</p>	<p>about 60%</p>

Cooling concept

<p>Cooled area :</p>	<p>19 000 m²</p>
<p>Cooling approach (description) :</p>	<p>Installations ensure energy efficiency owing to delivery of additional heat from the outdoor renewable sources that include: Direct ground heat / mass exchangers Tubular ground heat exchanger A unique in Poland renewable heat source are the ground heat exchangers installed in the buildings complex for purposes of pre-heating of the fresh (intake) air in the ventilation system – during the winter time and its cooling during the summer time. The exchangers have been placed around the buildings complex in a small depth under the grass beds. The accumulations bed is made from granite gravel. The input power (fan motor power) to the effect ratio equals to 1,30. Such exchangers (called direct exchangers) have been installed in most of the buildings that belong to the complex. The hotel building operates its own ground heat exchanger of tubular type in which the air is pre-heated in winter and cooled in summer, flowing thru a system of pipes placed in the ground, 1,5 – 3,0 meters deep.</p>
<p>Annual electricity</p>	<p>No data</p>

consumption (kWh_{el}/m²):

Building concept

Comfort	High
Solar protection	Standard solar protection based on use of external windows blinds and special glass wall covering façade.
Lighting performance:	Medium
Office equipment:	No data
Regulation:	High level

Links and download files

<http://www.skanska.pl/>

Contact

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