

Chilled Ceiling Panel INDUCOOL

Ministry building Stuttgart



Corridors for slimming? With a length of 200 metres, this new ministry building in Stuttgart's Willy-Brandt-Strasse invites employees there to participate in short sprints. The design and planning are from the Berlin office of Staab Architekten. The users are the Ministry of the Interior, the Environment Ministry, and the Ministry for Nutrition and the Countryside.

The new building brings about 20 different ministry offices together under one roof in a prominent location in Stuttgart. The 7,500 square metre construction site lies to the north of the cultural boulevard between the underground stations Staatsgalerie and Neckartor – and Stuttgart 21 is scarcely ten minutes away. On the narrow triangular plot, the architects have built several rectangular blocks of varying sizes and slightly offset from each other. In this way they have cleverly adapted the building complex to a site which narrows towards the south-east. Five atriums give structure to the ensemble; they provide for daylight and access in each block. The façade, 200 metres long, features large, horizontally formatted windows. The result is an unostentatious, elegant administration building with approximately 25,000 square metres gross floor area; it affords the ministries the appropriate degree of prestige. The construction costs are estimated to be EUR 65m. For the architects, who won the design competition in 2008, the major challenge was to achieve a judicious division of the long block into sub-sections that were acceptable to pedestrians and employees, while simultaneously integrating the large complex into the urban environment. On the narrow triangular plot, they have built several rectangular blocks of varying sizes, slightly offset from each other. In this way they have cleverly adapted the building complex to the site, which narrows towards the south-east.

It is not just the building's architectural quality that impresses. It simultaneously sets standards with its sustainable energy concept. A building envelope with high energy quality in conjunction with efficient building systems are the major components of the energy concept.



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Function Chilled ceiling panel INDUCOOL:

INDUCOOL cools with air and water. Most of the thermal energy is removed quickly and economically by cooling water. High-quality air diffusers ensure a high degree of comfort and optimum air distribution.

System advantages:

- Greater thermal comfort with low air velocity
- Chilled ceiling panels require only 5-10% of ceiling area
- Reduced energy costs by exploiting the cooling potential of outdoor air
- High cooling capacity, up to 500 W/m
- Integration of cooling panels into all common ceiling systems
- A full-surface cooling-water system is not required

Building: Ministry building

Stuttgart

Architects: Staab Architekten,

Berlin

Proprietor: Vermögen und Bau

Baden-Württemberg

Consultant TGA: Duschl Ingenieure

Project GmbH & Co.

KG, Rosenheim

Ventilation system: Chilled ceiling panel

INDUCOOL

Scope: 3.000 m²

Type of ceiling: Wood-panel ceilings

respectively plaster-

board ceilings

Specific cooling load: $50 - 120 \text{ W/m}^2$

Specific air flow: 30 - 65 m³/hm









Photos © Marcus Ebener





