

Concrete core cooling with air CONCRETCOOL

Puma AG, Oensingen



The new headquarters building for Puma Schweiz AG in Oensingen is a classical reinforced concrete frame structure. The basement is a massive reinforced concrete construction. The floors above it are rest on precast spun concrete supports. The façade of the open frame structure is clad with a glass curtain wall. The floors above the second floor are used as offices. The ground floor comprises a factory outlet and a bistro restaurant, while the first floor is occupied by a showroom for trade customers.

Function of CONCRETCOOL

In contrast to conventional systems, in which supply air is fed directly into the working areas, the air first flows through aluminium cooling tubes cast into the ceilings. Thereby the supply air cools the ceiling. At the same time the gain of heat is used to warm up the supply air.

System advantages

- Optimum thermal comfort
- Additional ceiling cooling with water is not required
- Free cooling provides energy savings of up to 50%
- Full flexibility due to modular positioning of cooling tubes
- Cooling with outdoor air no air circulation required
- Construction costs reduced due to low floor height

Building: Puma AG, Oensingen

Architects: Mühlemann + Partner

Architekten und Planer GmbH

Grenchen

Proprietor: Puma Schweiz AG

Scope: 3.000 m² conditioned area

System: Concrete core cooling with air

CONCRETCOOL

Per fitout module, one linear

diffuser

Air flow guide vanes are

invisibly

integrated into the ceilings.

Air flow rate: 8.3 m³/hm²

(exch. rate = $2.7 \times / h$)

