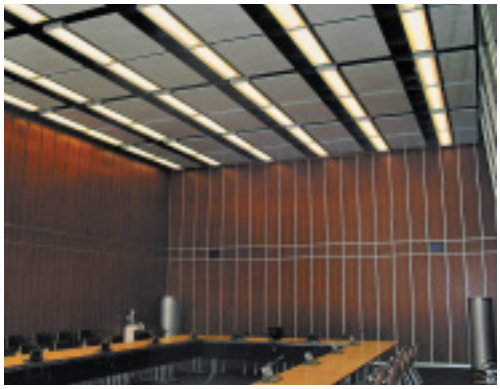
Radiant ceiling heating and cooling

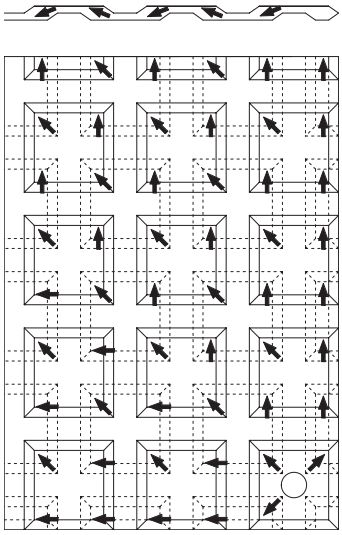
Radiant cooling and heating panels create a very comfortable, thermally balanced indoor climate. The temperature of the heating surfaces can be precisely adjusted, so as to achieve optimum heat transmission to the occupants in the room. Water, circulated in a closed system, is used as the heat-transfer medium within the panels. The advantage of water over air is its significantly higher energy transmission capability: at a given flow volume, water can transfer 7,000 times more energy.

The panels are made up of two 0.6 mm thick stainless steel sheets that are deep-drawn and then electrically welded around the edges. The resulting cross-section ensures full flow through the system and an even temperature distribution within each panel. The system is hygienic, maintenance-free and absolutely noiseless. As coated surfaces have better radiation properties than plain metal, the surface of the flat heat exchangers are thermo-painted and powder-coated.

In the International Conference Centre in Geneva, approximately 260 square metres of 'radiating surfaces' were fitted into the suspended ceilings.

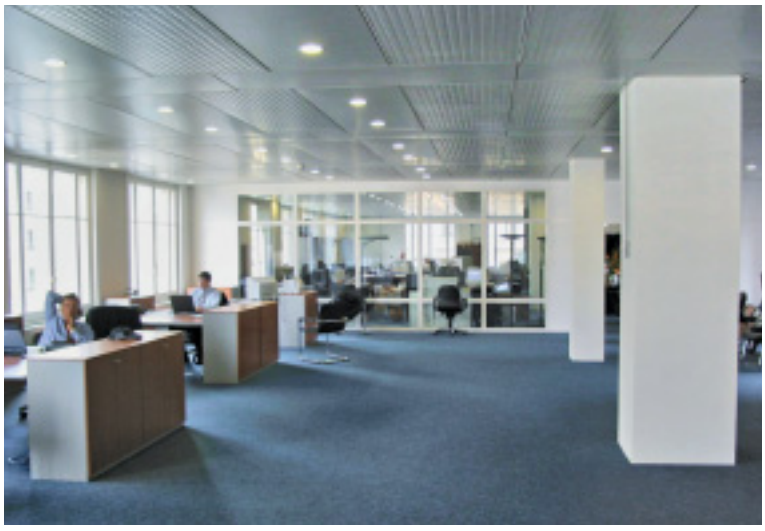


Client: CCIG, Geneva, Switzerland
Architects: Wicht, Contat, Dubouchet, Carouge, Switzerland
Engineers: Optitherm, Geneva, Switzerland
Photo: Energie Solaire SA, Sierre, Switzerland



In each panel, two 0.6 mm deep-drawn sheets of stainless steel (grade: 1.4301) were resistance welded in such a way that the cushions were offset against each other by half a panel width. This ensures an even flow of water through the panel.

Client: Dynagest, Geneva, Switzerland
Architects: Giuli & Portier Architekten, Onex, Switzerland
Photo: Energie Solaire SA, Sierre, Switzerland



In the Dynagest investment bank in Geneva, the rooms are cooled and heated by means of radiant panels. The deep-drawn, white painted stainless steel panels are integrated into the plane of the suspended ceiling.