



Seit 1877

Kiefer

Luft- und Klimatechnik

Neue Wege mit Luft

Displacement air outlet INDUQUELL

Scharoun theatre Wolfsburg – reopening after modernisation

When it opened in the seventies, the Scharoun theatre in Wolfsburg, Germany, made it possible for the quality of plays, ballet and musical theatre alike to take a huge leap forward and has remained a great attraction to this day. After forty years, it was time for modernisation: not just in terms of stage technology, the furniture, flooring and typical colours all needed gently bringing up to date.

What's more, new requirements for safety and fire protection technology meant that further modifications were also necessary. Architects were asked to work locally in close cooperation with all building and monument preservation societies to find an ideal solution that managed to combine aesthetics and design under complex conditions. The theatre was reopened in January 2016.



The new designed entrance hall is intentionally distinct from the theatre hall.

Photo © Lars Landmann

An unusual solution: supply air in this theatre is supplied directly to the visitors via doubled chairbacks.

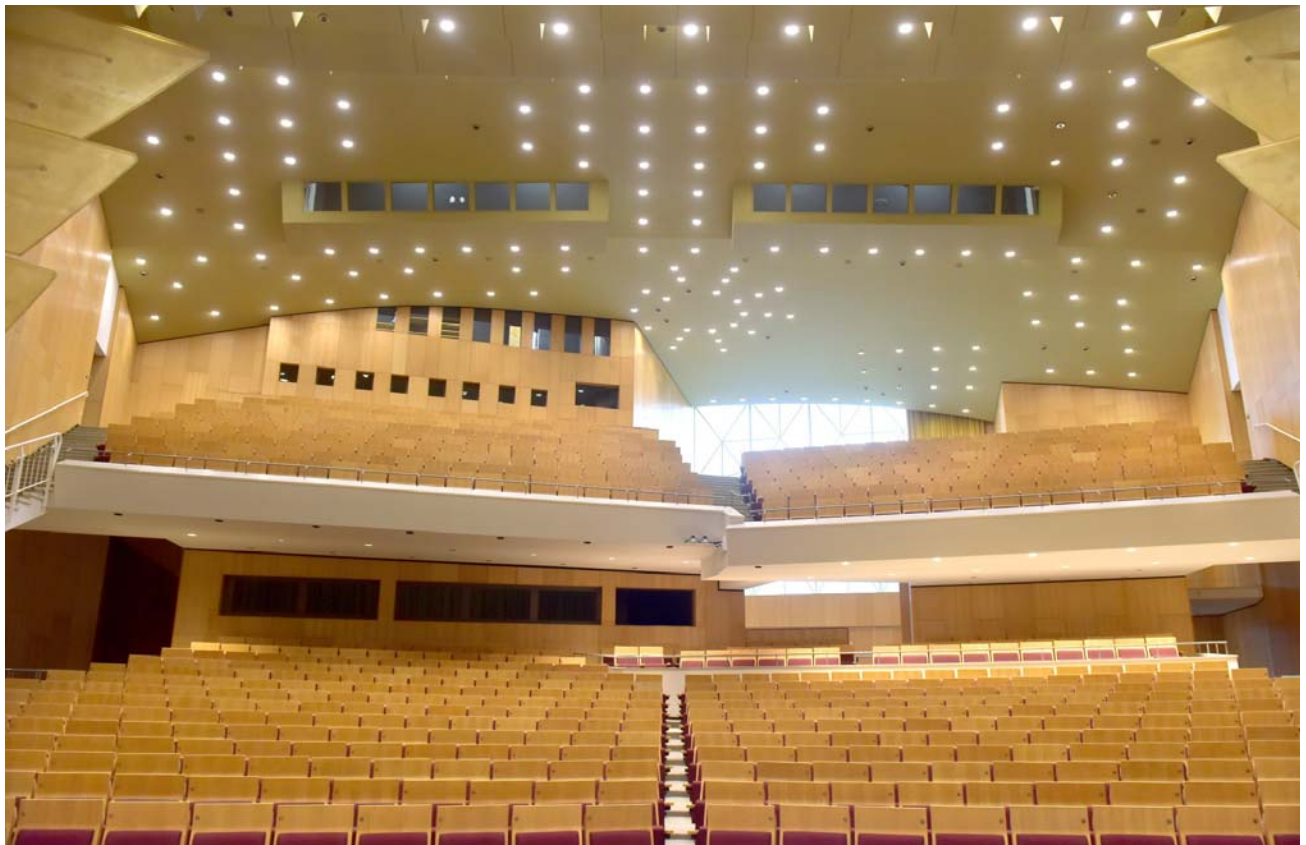


Photo © Lars Landmann





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Features

In the theatre hall, supply air is supplied via air outlets at top of doubled chairbacks. A full-surface floor plenum underneath feeds the supply air into the floor brackets of the chairs. Special air guide elements have also been integrated into the chairbacks to increase comfort properties and ensure a draught-free air flow path. The optimum arrangement of the air guide elements was determined during a flow trial at the Kiefer flow laboratory using the original theatre chairs and compliance with the required values for room acoustics and the absence of draughts was confirmed. By reproducing the existing perforated plate on the top of the theatre chair 1:1, we have been able to meet all building and monument preservation requirements that stipulate an invisible ventilation solution without limitation.

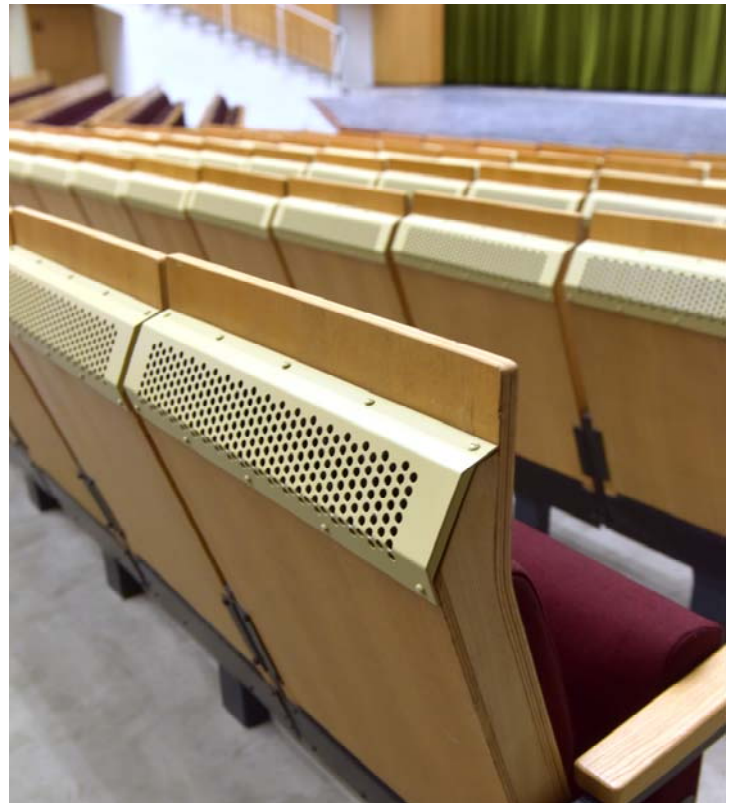


Photo © Lars Landmann

Integrated air guide elements in chairbacks as a comfortable, invisible solution with INDUQUELL air outlets from Kiefer.

Function INDUQUELL:

In the case of conventional displacement air systems, the supply air is fed to the room gently with little turbulence. Displacement air systems are characterised by low air velocities and low temperature differences between the supply air and ambient air in the occupied zone. Owing to the combination with the inductive air guide elements developed by Kiefer, INDUQUELL is, on the contrary, capable of high temperature differences of up to – 8K with greater comfort.

Advantages INDUQUELL:

- High thermal comfort
- Versatile application areas
- Meets high acoustic requirements
- Multiple special solutions possible
- Gentle air distribution
- Powerful at high temperature differences

Building:	Scharoun theatre Wolfsburg
Proprietor:	Stadt Wolfsburg
Architects:	Gesellschaft von Architekten mbH Brenne, Berlin
Consultant:	Ingenieurgesellschaft Meinhardt Fulst GmbH, Braunschweig

Ventilation system:
Displacement air outlet INDUQUELL in project-orientated special version for integration in chairbacks

Reopening after refurbishment and modernisation on
24 January 2016