



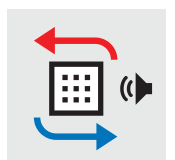
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# PROJECT

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Centre at Potsdamer Platz  
[formerly Sony Center]  
Berlin

**GRAVIVENT x ACOUSTICS**  
GraviVent® – silent cooling  
combined with acoustic walls



# WORKSPACE

## Centre at Potsdamer Platz Berlin



ARCHITECT | ENGINEER

Kinzo Architekten, Berlin | Lechner + Partner Ingenieure, A-Hartberg

GRAVENT® – silent cooling x ACOUSTICS

Product development TTC x Kinzo

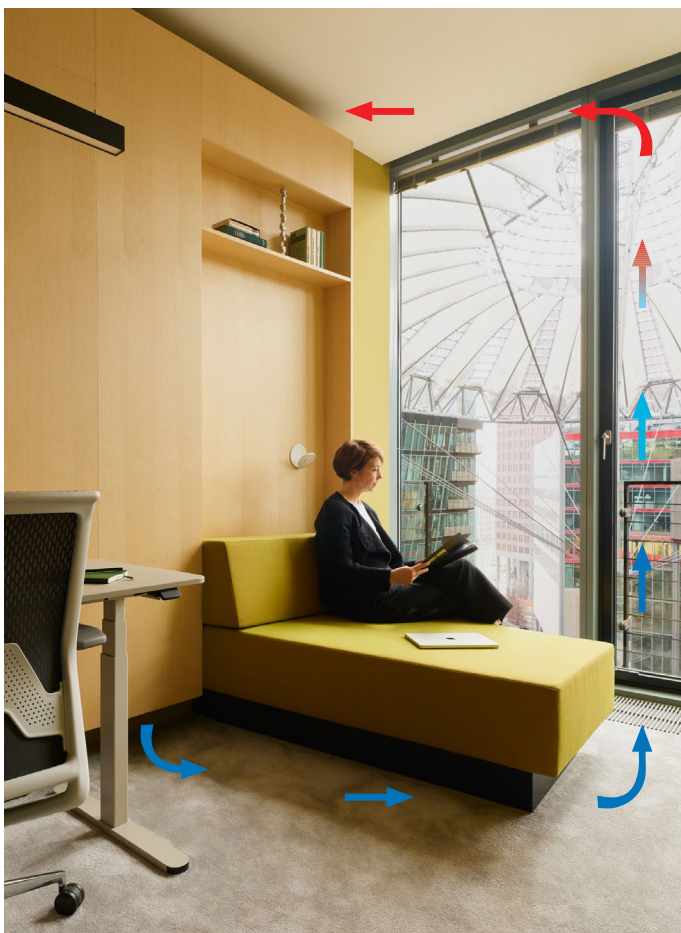
### No noise

The Centre at Potsdamer Platz, formerly Sony Center, has been extensively redeveloped by Kinzo Architects for a global consultancy firm. The revitalisation of the Centre focussed on »New Work, Culture and Lifestyle«: stylish, comfortable and highly functional.

GraviVent was chosen for the air conditioning of the offices and conference rooms. The silent gravity cooling system is based on the principle of natural convection and requires no additional fans. The low-maintenance and fully recyclable system is normally installed behind plasterboard walls. In this case, however, the wall surfaces were also intended to fulfil an acoustic function and, through their materiality, ensure a particularly pleasant environment.

Together, Kinzo and TTC developed a solution that combines technical, acoustic and aesthetic requirements. The GraviVent elements are concealed here behind acoustically effective, micro-perforated wooden panels. The air ducts required for the cooling system also act as a buffer space to reduce noise. An additional insulation layer completes the structure and ensures optimal room acoustics. The result is impressive to see, hear and feel in every respect.

The timber panelling design is just one example of the possibilities offered by GraviVent x Acoustics. Structures made of PET felt, perforated sheet metal or fabric coverings are also suitable as visible panels.



# WORKSPACE

## Centre at Potsdamer Platz

### Berlin

#### GRAVIVENT AS AN ACOUSTIC COOLING WALL

Custom-built structure with acoustic panels

#### GRAVIVENT® – silent cooling x ACOUSTICS

Product development TTC x Kinzo

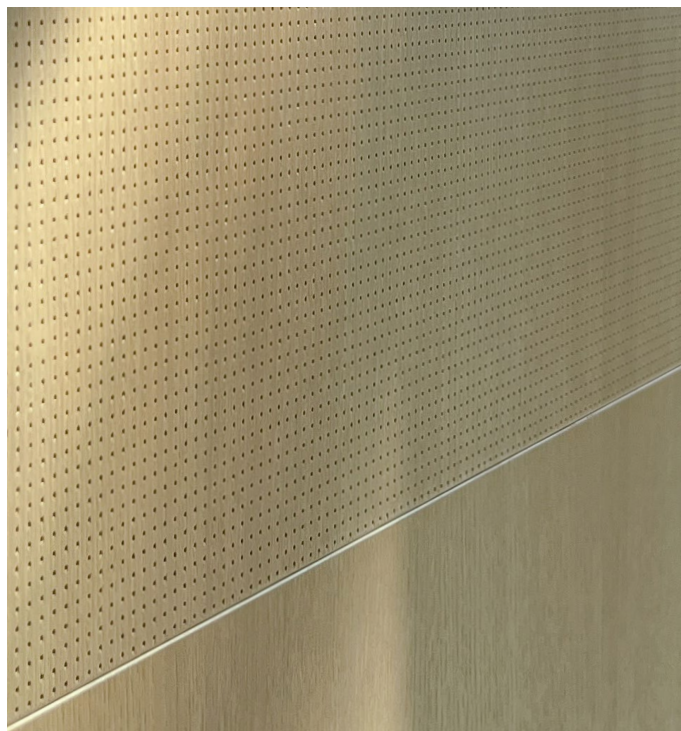
### GraviVent®

#### Silent gravity cooling

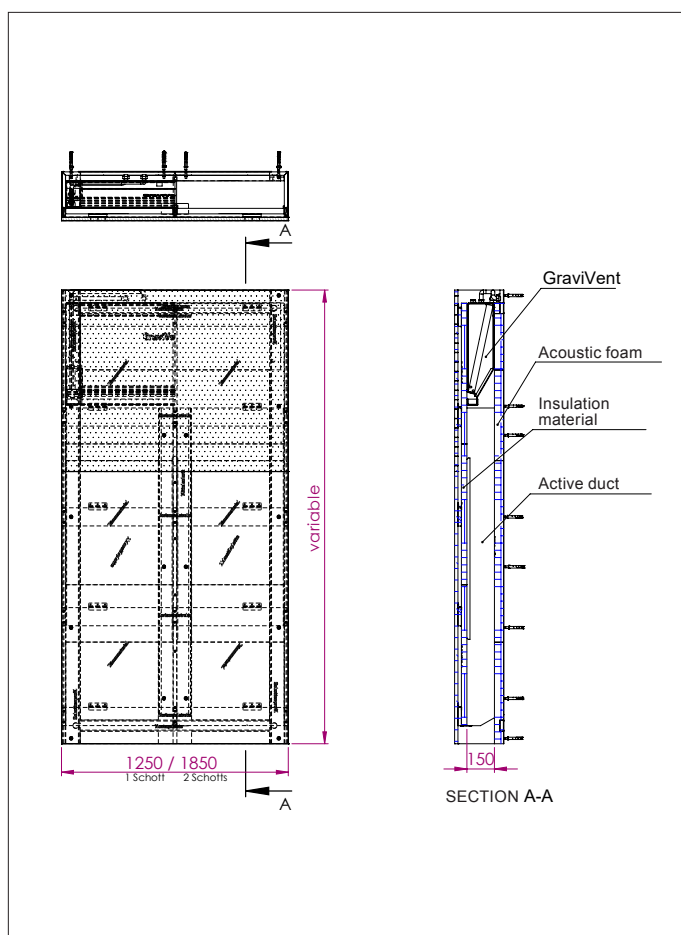
- 224 high-performance cooling convectors type ISHK xx.15, in various lengths 800–2000 mm, 500 x 150 mm [H x W]
- High-performance cooling unit for dissipating sensible cooling loads via guided free convection, performance category 2
- Insulated aluminium condensate tray extend. the full length of the unit, condensate drain pipe leading towards the drain duct
- For use with cooling medium of drinking water quality in accordance with VDI 2035
- Room temperature 26 °C  
Cold water inlet/outlet 16 °C/19 °C  
Temperature difference  $\Delta T_m$  8.5 K  
Effective duct height ( $H_{active}$ ) 2.18 m  
Cooling capacity per finned unit length 480 W/m

#### Acoustic cooling walls type AGV

- Cooling wall absorption surface ( $A_{obj}$ ) made of micro-perforated ash veneer with non-woven backing;  
Absorption coefficient > 0.8 in the range from 250 Hz to 4000 Hz



Ash mikro-perforated



# WORKSPACE

## Centre at Potsdamer Platz

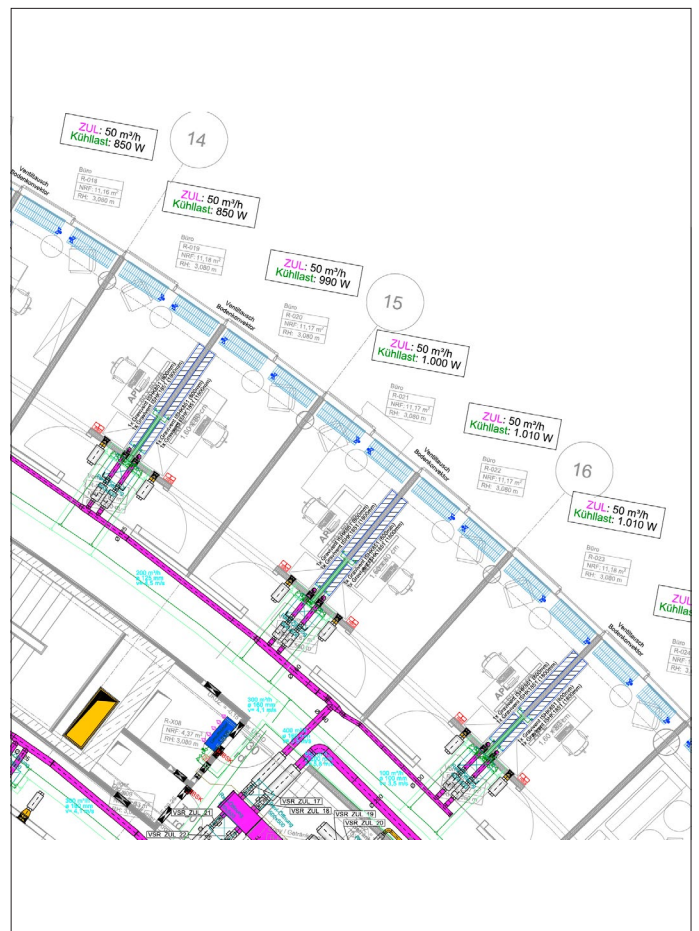
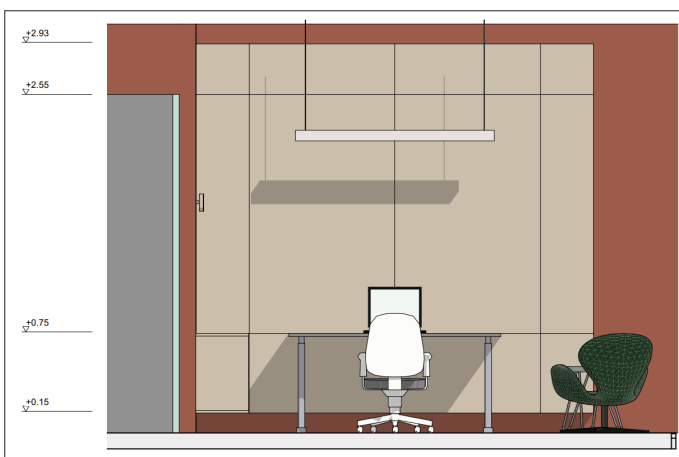
### Berlin

#### GRAVIVENT AS AN ACOUSTIC COOLING WALL

Technical drawings

#### GRAVIVENT® – silent cooling x ACOUSTICS

Product development TTC x Kinzo



# WORKSPACE

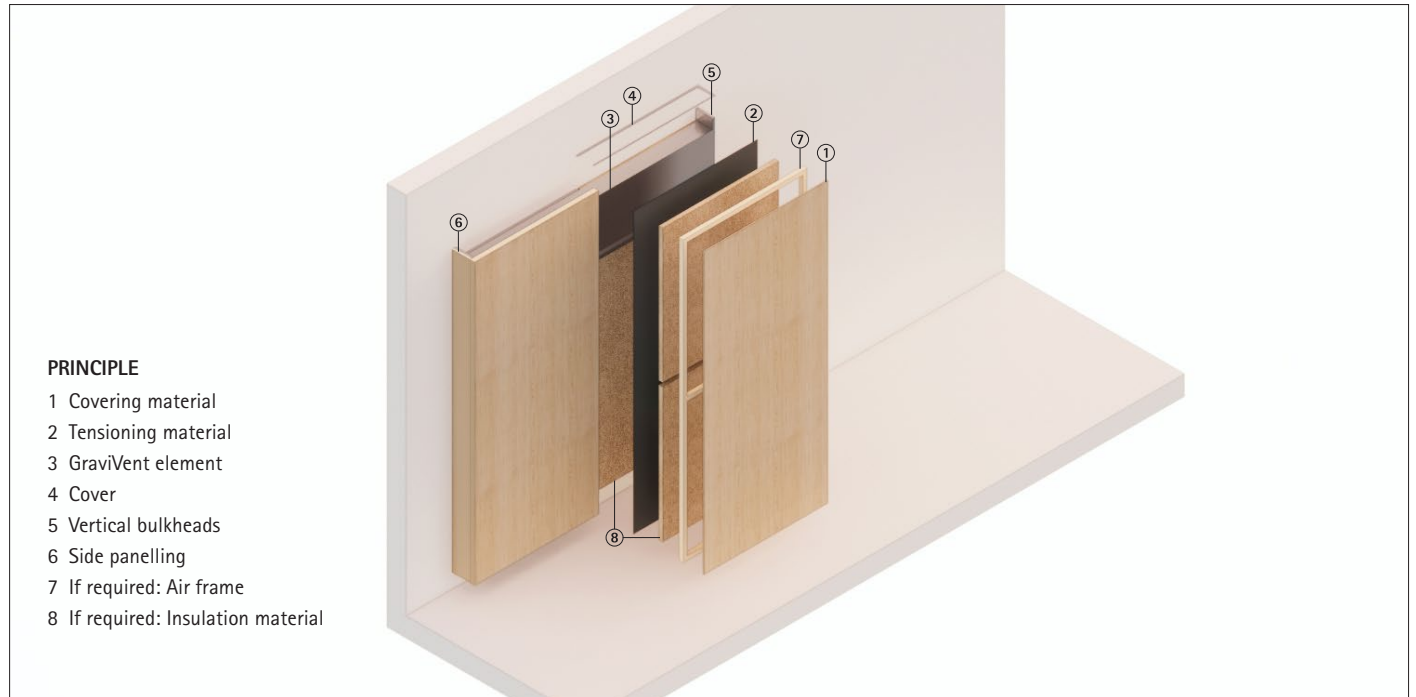
## Centre at Potsdamer Platz Berlin

### GRAVIVENT AS AN ACOUSTIC COOLING WALL

Principle of the cladding

### GRAVIVENT® – silent cooling x ACOUSTICS

Product development TTC x Kinzo



# WORKSPACE Centre at Potsdamer Platz Berlin



GRAVIVENT AS AN ACOUSTIC COOLING WALL  
Integration of screen walls

GRAVIVENT® – silent cooling x ACOUSTICS  
Product development TTC x Kinzo

## INTEGRATION SCREEN WALLS

Omitted



Adjusted/Framed





TTC Timmler Technology

## Designing innovative solutions for new buildings and redevelopment together with architects and planners

Developing object specific solutions together with architects and specialist planners already during the planning phase is the strength of TTC Timmler Technology.

TTC provides smart building technology for contemporary living and working environments: LED light design, innovative air-conditioning systems, design-oriented façade elements and grating systems for interior and exterior areas.

With our extensive know-how we can balance modern design, energy efficiency, and economic efficiency. We design customized complete solutions in accordance with technical specifications, either made from standard components or made to your individual requirements.

## Green and economical

People and environment are at the heart of all our endeavours. We develop natural airconditioning systems to go easy on resources and to save costs.

## Multi-functionality Our know-how for your planning

Multi-functionality is a special strength of TTC building technology. Below a few examples:

- LED Light Design – TTC lighting elements can be combined with channels and gratings as well as maintenance platforms, using striking illuminations to show your architecture in the best light. TTC light design offers a variety of options: From façade illumination with SpaceLights, high brightness LEDs, LED light lines and light tiles to wall washers – with our large choice of materials and individual design we can provide a customized solution for your project.
- TTC GraviVent® can be used to provide a consistent climate within a building. Energy-efficient, making use of natural gravity.
- TTC Chilled Beams ensure comfortable, silent ventilation in a wide variety of working environments. In consultation with architects and planners they can be individually fitted into the ceiling design.
- TTC Floorunits with a variety of functions such as heating, cooling, ventilation combine design with functionality and energy efficiency without disturbing the look of, for example, room height glass façades.
- Homogeneous grating systems create seamless transitions from the interior to the exterior on glass façades. TTC Floorunits provide heating, cooling and ventilation for interior areas and complement the TTC façade draining systems for exterior areas.

### TTC Timmler Technology GmbH

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