Lufthansa Aviation Center

The German airline's new administrative building at Frankfurt Airport combines "high tech" and "low-energy" - an exemplary design from the offices of Ingenhoven Architekten.

Nestled between the motorways, car parks, hangars and terminal buildings at Frankfurt Airport lies the German Lufthansa's new Aviation Center. Over 1800 people work under the one roof, whose form resembles that of a paraglider. Large atria, designed as gardens, divide the building complex into several units, each six storeys high, connected by a passage on ground level. The massive use of technology and design intelligence enabled the Ingenhoven architects to create a building whose elegance and transparency conveys the corporate values of their clients while simultaneously respecting both the needs of the users and environmental concerns.

The omnipresent daylight that floods in through the glass architecture is supplemented by the holistic lighting concept that adds two components of artificial lighting: Optec wallwashers are mounted on singlets on the upper edge of the wall and brighten up the ceiling as indirect lighting. Direct light is provided by the luminaire inserts in the specially designed "modular technology
frame system", a ceiling element which is used throughout the entire building – more on this on the next page.

This modular technology frame system was developed by architects and lighting designers in close cooperation with ERCO as luminaire manufacturer. ERCO's input was necessary because the design-related minimised heights of the individual ceilings meant that it was not possible to integrate essential functions into the ceiling construction in the usual fashion. The mass-produced element holds acoustic panels, smoke detectors and loudspeakers as well as various luminaire inserts such as downlights or directional luminaires for metal halide lamps from the ERCO product range. Various lighting milieus can be achieved by exchanging the luminaire inserts. The module's striking appearance makes it a hallmark feature of the architecture.

Each of the nine atria is designed as a garden with its own theme. Tesis uplights are used here to add scenic lighting effects to the bushes and trees.

Tesis in-ground luminaires in the surroundings of the Aviation Center illuminate the protruding eaves from below. The precise lighting technology of the Tesis adjustable uplights and state-of-the-art metal halide lamps allow this effect to be achieved with a
comparatively low number of luminaires - a factor that reduces the installation costs in the outdoor area.

Deutsche Lufthansa AG
Lufthansa Aviation Center
Airportring
60546 Frankfurt/Main

The Lufthansa Aviation Center is open for visitors from Monday to Friday, 5:00am - 10:00pm.
Telephone: +49 (0)69 696 - 0
lac.lufthansa.com

Architects: Ingenhoven Architekten, Düsseldorf
www.ingenhovenarchitekten.de

Involved parties (in excerpts, sources: Ingenhoven Architekten)

Structural design and special statics
Werner Sobek Ingenieure GmbH, Stuttgart
www.wernersobek.com

Technical building equipment
HL-Technik AG Beratende Ingenieure, München
Brendel Ingenieure GmbH, Frankfurt/Main
Ebert Ingenieure, Frankfurt/Main

Facade design
DS-Plan GmbH, Stuttgart
Building physics
DS-Plan GmbH, Stuttgart
Institut für Bauphysik Horst Grün GmbH, Mülheim/Ruhr

Lighting design, artificial and natural lighting
Tropp Lighting Design, Weilheim
www.tropp-lighting.com

Interior
Ingenhoven Architekten, Düsseldorf

Open space planning
Ingenhoven Architekten, Düsseldorf
with landscape architects WKM Weber Klein Maas Landschaftsarchitekten, Meerbusch

Energy concept - client advice
Baumgartner & Partner AG, Dübendorf (CH)

Building data (Source: Ingenhoven Architekten)

Start of planning: Spring 2000
Gross floor area / net usable area: 126,203 m²
Gross volume: 605,000 m³