



Hamburg Dockland / Germany



Project
Hamburg Dockland office building /
Germany

Client
Robert Vogel GmbH & Co. KG,
Hamburg / Germany

General contractor
Richard Ditting GmbH & Co. KG,
Hamburg office / Germany

Architect
BRT Architects, Bothe Richter Teherani,
Hamburg / Germany

Structural design
Ingenieurbüro Dr. Binnewies,
Hamburg / Germany

Façade construction
DS-Plan LgBB,
Stuttgart / Germany

Completion date
January 2006



An office building with a panoramic view over the River Elbe



Hamburg is the city of water and awakens in people a longing for far-flung places. The extraordinary Dockland office building, in the shape of a luxury liner, that berthed on the bank of the River Elbe in January 2006, reflects this many times over. With its exposed position, an unimpeded view on all sides and a high-quality interior fit-out, this building provides a working environment with a high level of amenities.

The Dockland office building was built on 3000 m² of newly reclaimed land in the River Elbe and is located at the head of the Edgar-Engelhard Quay between Norderelbe and Fischereihafen. This prominent location alone throws the building into the spotlight of the Hamburg cityscape, but the expressive shape and form of the building creates even more of a stir. The geometric shape of a parallelogram is transferred over to the structural design of the seven-storey high building. The structure of the building is inclined by 24 degrees, similar to the shape of a luxury liner, so that the "prow" of the building projects around 40 metres out over the River Elbe.



The Dockland building provides a total of 9000 m² of office space, as well as 79 parking spaces on the ground floor. The building is accessed by means of open staircases, which rise towards the roof at the "stern" of the building and are accessible to the public. This means that visitors also have the opportunity to use the roof as a viewing platform and enjoy the spectacular views from above. Internal access to the different floors of the building is via two fully-glazed, inclined lifts, which also provide a wonderful view over the city of Hamburg.

The almost fully glazed building, 21 metres wide and 86 metres long, is supported by a steel frame construction. The structure comprises two steel girders, each the height of the building, shielded from weathering within the double skin cladding, and an axial steel frame. Any loads are transferred by shoring, spaced 6.75 metres apart, onto the steel frame construction. The façade structure is based on a 1.35 metre grid.

Openness and Transparency

The client, Robert Vogel GmbH, set great store by making a high quality working environment available to the future tenants of the Dockland's office space. In the same way that the location of the office building conveys a sense of spaciousness from outside, the design of the interior is also characterised by a feeling of openness. The different usable areas within the office building are simply demarcated by furniture that can be moved around at will, thus creating a spacious and airy atmosphere. The shape of the building is not the only thing reminiscent of a luxury liner: the interior fit-out is also of the most superlative quality, the combination of steel, glass and natural stone, together with mahogany and cedar, creating a sophisticated and timeless atmosphere. Communication areas, such as meeting and conference areas and visitors' rooms, exhibition space, kitchens, archives and toilet blocks are therefore all located right in

WAREMA conservatory awnings run from bottom to top. They have been specifically adapted to fit the angled glazing at the rear of the building. The concealed installation of the drive and awning fabric in the floor allows the system to blend in harmoniously with the interior design of the building.



the very core of the building. This means that the façade of the building could be almost completely glazed – the office employees thus have wonderful panoramic views over the harbour areas, as well as a high-quality working environment.

Sun and glare protection

The expanse of glazing results in a raised level of solar radiation entering the building and requires measures to be put in place to provide sun and glare protection. BRT Architects therefore opted to fit an internal sun shading system at the rear of the building with its large expanse of angled glazing. WAREMA conservatory awnings block out reflection and glare at the work place and create optimum working conditions. The extraordinary design of the Dockland's façade meant that a customised solution, tailor-made to fit the angled glazing, had to be developed in close cooperation with WAREMA. What is unique about WAREMA conservatory

awnings is that they have concealed fittings: both the drive and the awning fabric are accommodated in an extruded aluminium box within the floor and the guide rails fitted to the structure of the façade are also very discreet. The awning functions on the back-pull principle, that is to say from the bottom to the top, and can be lowered to a maximum length of 6 metres.

Anti-glare protection

Conservatory awning W6, customised design, made of Acrylic fabric

- The drive and awning fabric are concealed in the-convector void
- The awning is operated by an electric motor and runs from bottom to top
- Optimum fabric tension thanks to a pre-tensioned spring mechanism
- No annoying reflections and glare at the work place

Control

- LONWORKS® technology to operate the conservatory awnings

Further information can be found at www.warema.de



◀ The external venetian blinds were fitted in the void of the double skin cladding. They are automatically controlled by LONWORKS® technology and guarantee glare protection whilst providing effective use of daylight.

Daylight control system

- External venetian blind, E80AF with flat aluminium slats
- Sun and glare protection
 - Optimum lighting right into the heart of the building
 - Enhanced well-being at the work place
 - Improved performance, lower absenteeism
 - Lower energy costs by reducing the cooling load and artificial lighting

Control

- LONWORKS® technology to control the external venetian blinds

Further information can be found at www.warema.de

Daylight control

The long walls of the building connect to the angled façade of the rear wall. The double skin cladding used there provides the opportunity of fitting a sun shading system in the void between the glazing. Compared with an internal sun shading system, the cooling load inside the building can therefore be reduced four-fold. The external skin of the façade consists of full-height, impact-proof linear supported LSG panes of glass. Slimline, full-height revolving windows in the internal glazing provide the option of natural ventilation.

WAREMA external venetian blinds with flat aluminium slats were fitted in the 1.40 metre deep void between the glazing. They provide effective use of daylight, guarantee sun and glare protection at the work place and provide an optimum level of lighting inside. At the same time they also regulate the incidence of the sun's rays into the building and thereby ensure that the temperature is comfortably warm. This increases the em-

ployees' feeling of well-being at work and lowers the energy costs of artificial light.

Building automation

The sun shading systems are automatically controlled by LONWORKS® technology. The decentralised bus system comprises a weather station, motorised controllers and operating units and provides effective sun shading with optimum lighting and temperature conditions in the office space. The sensors detect brightness, wind force and date and time and make this data available to all the BUS units. The motorised controllers then execute the commands according to the pre-set parameters. The central operation of the sun shading products is done by a LONVCU unit, the programmable menu of which has been adapted to suit the specific requirements of the project. The blinds can also be manually operated on a keypad to suit the individual needs of the users.

Over and above providing standard security functions, such as wind and fire



alarms, the LONWORKS® technology also enables individual solutions to be carried out. The blinds can be controlled centrally and per façade of the building, by means of a direct connection to the building management system, when the windows require cleaning for example. Remote maintenance is also possible via an ISDN modem. In this way, the control of the systems can be quickly and cost-effectively adapted to any new situation, should there be modifications required in terms of limit values, functionality or partitioning of the space.

In spite of the spacious transparency of the shell of the building, the sun shading elements, working in harmony with each other, provide the Dockland's tenants with a high degree of comfortable heat and thus also optimum working conditions.

"My aim was to create a building that had a strong relationship with the element of water. The harbour surroundings inspired me to use a shape from shipbuilding – this is how the Dockland was created. It is surrounded by water and, because of its exceptional location, the "passengers" always have the feeling that they are on a journey."



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