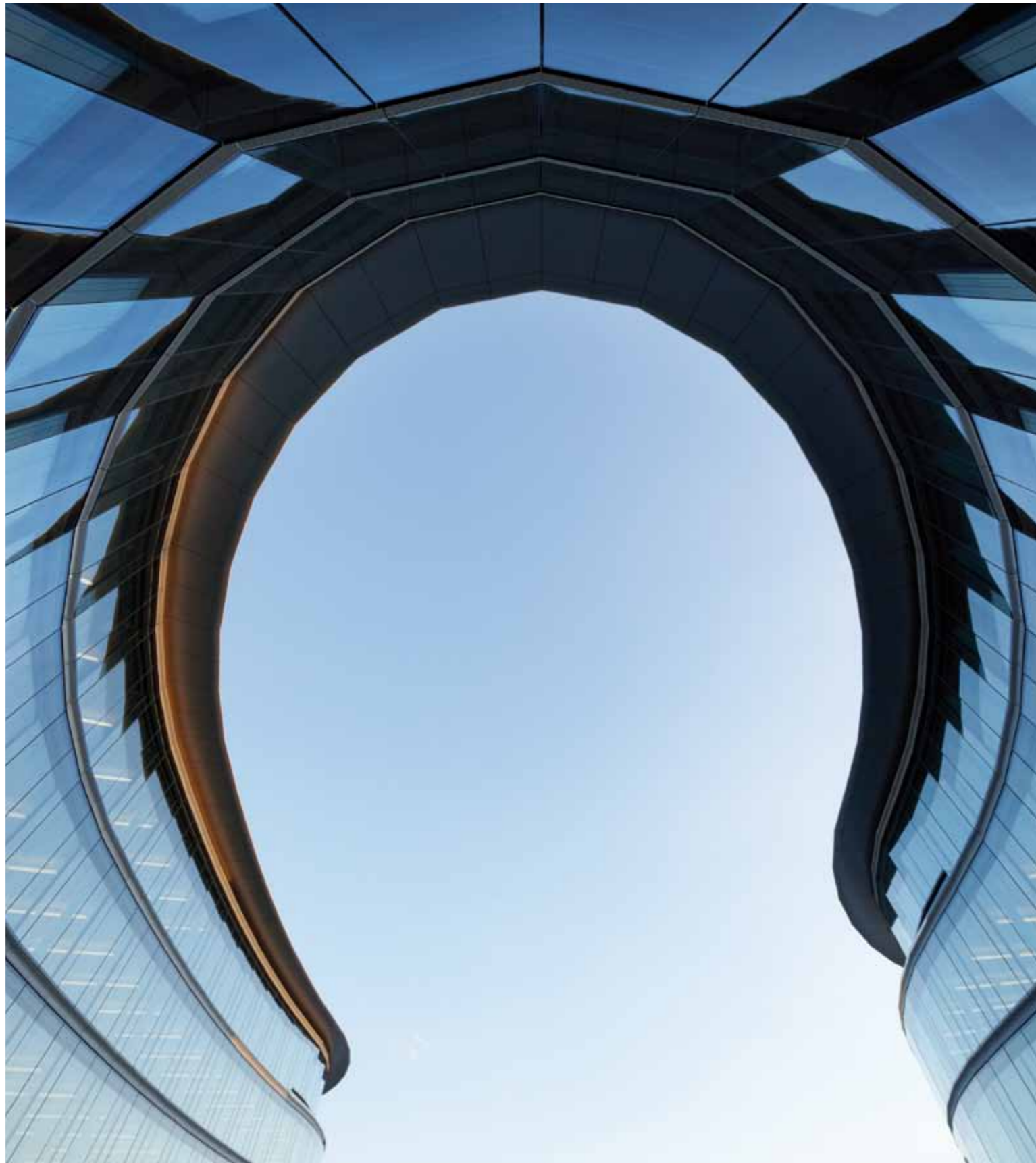




## **Daniel Swarovski Corporation, Männedorf / Switzerland**



## An unblocked view of the lake and the Alps



**Object**  
Daniel Swarovski Corporation,  
Männedorf / Switzerland

**Client**  
Swarovski Immobilien AG,  
Männedorf / Switzerland

**Architects**  
ingenhoven architects,  
Düsseldorf / Germany  
Branch Office Männedorf / Switzerland  
Project Manager Thomas Höxtermann

**General Contractor**  
Implenia Generalunternehmung AG,  
Dietlikon / Switzerland

**Total floor space**  
19,000 m<sup>2</sup>

**Completion**  
October 2010

The new administration building of the Daniel Swarovski Corporation was completed in October 2010 in Männedorf, Switzerland, on the shores of Lake Zurich. The four-storey glass building, which provides space for 450 workplaces, has a compellingly unusual form. In addition, its thoroughly sustainable architecture is designed to meet the highest building energy requirements.

The name Swarovski evokes sparkling crystalline worlds. „Poetry of precision“ is the philosophy that underscores the high quality standards of the company – an approach that is expressed in its architecture as well. ingenhoven architects implemented this concept in a curved building with room-high glazed elements and open and transparent offices.

A further source of inspiration for the building's striking form was its direct proximity to Lake Zurich. Employees have a spectacular view of the lake and the Alps from almost any workplace in the building.



◀ The new administration building reflects a sustainable planning approach, down to the detailed solutions for the sun shading system and its control.

▶ The special external venetian blind model supports the design concept and considerably enhances comfort inside the building.



**Equally open and transparent as the form and façade of the new administration building are the working conditions for the employees.**

**The architecture creates workplaces of high quality, supports flexible organisational structures and short communication paths.**

The curved shape of the building and the largely open plan workplaces create a livable community. Teamwork and smooth, formal and informal communication between all staff levels are characteristic of the work environment. To be able to quickly and flexibly accommodate organisational changes in room use, well-structured areas and the same workplace conditions are distributed throughout the building. Thus, the project jointly addresses openness in the corporate structure and openness in the spatial arrangement.

The high degree of transparency afforded by the design infuses the interior with the dramatic landscape just outside the building. The unembellished architecture unobtrusively blends into the natural surroundings of meadows, vine-

yards and traditional fruit orchards. In addition, the exterior landscaping with terraces, a generous plaza and diverse plantings successfully integrates the campus with the Lake Zurich shore.

#### **Energy concept and façade construction**

In its geographically prominent location, the Swarovski office building enters into an energy-based alliance with the neighbouring Lake Zurich: The innovative energy concept reduces energy consumption by using lake water for cooling and heating. Through the successful interplay between the thermo-active system, building technology and façade construction, the Swarovski office building meets the requirements of the Swiss Minergie standard. It also fulfills the requirements for air tightness,

heating demand, heat insulation, heat protection glazing, heat distribution, controlled ventilation and use of daylight. This not only leads to a very low consumption of energy but also to a pleasant climate at the workplace and a high level of user comfort.

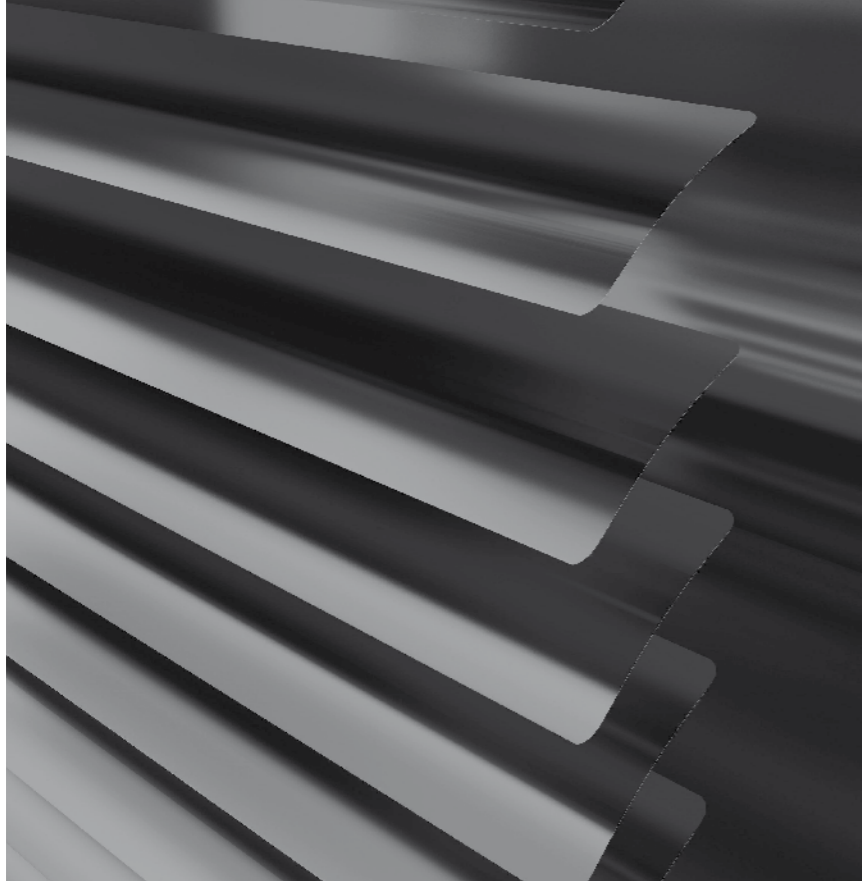
The finely structured building façade provides an unobstructed view of the outdoors and very high transparency. The special element construction minimises the use of visible components. An interior, primary façade level is formed by room-high elements with a width of 2.70 metres consisting of triple insulated glazing filled with an inert gas. The glazing is self-supporting without additional vertical posts. Integrated in the ceiling area are motorised supply and extract air shutters for

additional natural ventilation. They are used alternately as supply air shutters for the above storey and as extract air shutters for the storey beneath them. A second façade level is mounted in front of the first to protect the sun shading system against wind and weather and as a noise insulation measure. Two VSG monoglasses are mounted on each 2.70 metre panel and fixed at the top and bottom glass edge with steel brackets bonded on the back. This external protective plate can be fully opened as a turn sash for cleaning and maintenance. Concave aluminium perforated sheet elements cover the horizontal openings between the stories and protect the equipment behind them.

#### **Sun shading system**

As an integral component of the façade, the sun shading system is an important aspect of the energy concept. The front-mounted, motorised WAREMA external venetian blinds E 150 AF AS with 150 mm flat slats give the system a particularly generous appearance from the inside and outside and guarantee optimal sun and glare control. The headrails, aluminium end caps on the bottom rails and the slender lateral cable guidance create a harmonious integration of the external venetian blinds in the double skin façade.

The gloss level of the special coating, which was reduced to 60%, provides optimal glare control in conjunction with the selected slat colour (RAL 9007).



Photos: H.G. Esch, Hennef

All blinds are provided with a so-called work setting. When lowered, the slats are fixed at an angle of 38°, which prevents darkening of the rooms while retaining a good view of the outdoors. The slats can only be closed individually by the user when the blind is fully closed. The slats of the external venetian blinds are completely open when the blinds are being raised.

The slat angle of each individual blind can be adjusted according to the position of the sun and the degree of shading. Hall sensors integrated in the blind motors make this possible. Thus, the sun shading system responds individually and precisely to the different conditions prevailing at the different

façade sections of the curved building exterior. The effective interaction of daylight utilisation and sun protection lowers cooling requirements and artificial lighting needs. Energy costs are reduced considerably.

#### Sun shading system

700 external venetian blinds E 150 AF AS with cable guidance

- Especially wide flat slats
- Work setting
- Effective sun and glare control
- Optimal interior illumination
- Enhanced comfort at the workplace through daylight utilisation
- Optimised energy costs due to the reduction in cooling requirements and artificial lighting needs

Further information can be found at [www.warema.com](http://www.warema.com)

The fascination of designing office structures of this type stems from the desire to create an optimal workspace for a company and its employees – to create a place where communication and teamwork are stimulated and promoted, and where creativity, economy and organisations converge in a space and optimise the workflow within a company.

Christoph Inghoven, ingenhoven architects, Düsseldorf





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