



Bromma Stockholm Airport

Project report

Timeless architecture. Future-proof glazing at Bromma Stockholm Airport.

In 2023, restoration of the glass facade at Bromma Stockholm Airport was completed. The work was carried out by Ryds Glas Stockholm AB with the participation of Fönsterkonsultgruppen Nele AB. To resemble the original glass, a vacuum insulating glass from AGC (FINEO) was used in combination with SCHOTT RESTOVER® glass for restoration. This enabled preservation of the visual aesthetics and historical character of this imposing building.



Architecture

Stockholm Bromma Airport is located in the Bromma district in the west of Stockholm in Sweden.

The airport building's facade is a typical example of 1930s functionalist architecture, characterized by clear horizontal lines and a flat, elongated design.

The building facade comprises reinforced concrete with narrow steel frames supporting large ribbon windows extending across the entire length of the terminal. These large windows let in plenty of daylight in the passenger areas and create an open, transparent connection between indoors and outdoors.

Task

A key challenge in restoring the Bromma Airport facade was to preserve the building's listed historic status while meeting modern technical requirements.

The facade, especially its intricate steel and glass structure, is characteristic of 1930s' functionalist architecture. Many components were aged, but from a heritage conservation perspective, they could not simply be replaced. Instead, they needed to be preserved, repaired or replicated wherever possible.



Photos: ©FINEO by AGC

Another challenging aspect was integrating modern glazing into the historic structure. The new glass elements were to provide significantly better thermal insulation and soundproofing properties, but without altering the visual appearance of the original facade. This required specially developed glass and customized solutions, as the existing steel profiles only permitted limited tolerances and were not designed for currently available standard formats.

Solution

The project's solution was to upgrade the glazing by modern, heat-insulating vacuum insulating glass into the existing frames, a step made possible by the unique properties of FINEO vacuum glazing, which allowed installation without structural modifications.

The choice of FINEO "Heritage Classic" vacuum insulating glazing made it possible to significantly increase the energy efficiency of the facade while maintaining its visual quality.

To resemble the original glass from the 1950s, the vacuum glass was laminated with four-millimeter-thick SCHOTT RESTOVER® glass for restoration to a total thickness of 13.5 millimeters. RESTOVER® has the same irregular, slightly wavy surface as glass from that period. Vacuum glass measures between 6 and 10 millimeters thick, depending on the required specifications, and has U-values ranging from 0.6 to 0.8 W/m²K. To achieve the same U-value with insulating glass, the glass would have had to be around 35–40 millimeters thick.

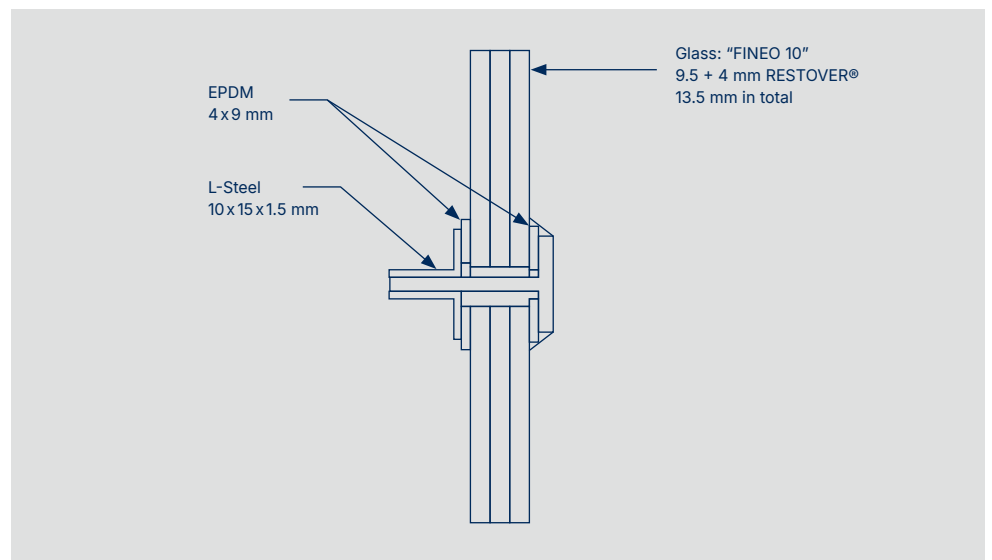
This solution also made it possible to retain the existing steel structure, which reduced costs and material consumption and minimized construction time and disruptions to airport operations.

The major renovation work began with removing rust from the existing steel facade and applying a special paint to stop corrosion. Ryds Glas also removed several thousand rusty screws, replacing them with new stainless steel ones. The glass panes were then replaced.

All in all, the glass facade restoration has combined heritage conservation objectives, modern building requirements and practical solutions, not only ensuring renewal of the facade but also future-proofing it in both aesthetics and functionality.

The Bromma Stockholm Airport project further demonstrates how cutting-edge vacuum glazing, when combined with heritage glass, can unlock energy-efficient renovation of listed buildings with high architectural constraints.

Material: FINEO 10 mm „Heritage Classic“
with SCHOTT RESTOVER®



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SCHOTT AG, Hattenbergstrasse 10, 55122 Mainz, Germany
Phone +49 (0)6131/66-2678, info.architecture@schott.com