



Flevo Hospital

Almere | The Netherlands | Realised by: Brakel Atmos, The Netherlands

“Both the staff and patients find their new surroundings extremely pleasant!”

Aad Lemmers, project coordinator at the Flevo Hospital construction department

Transparent thoroughfares have made the hospital much brighter

Task: Upgrade and extend the glass roof, fire protection and ventilation system

The 'old' glass roof and the glass facades of the hospital, built in 1990, are in poor condition. Renovation was required! Brakel had to be mindful of the future extension (new build) of the glass roof and facades scheduled for later in the project, which incidentally have now been completed.

Fire safety regulations have changed drastically since 1990. This meant the installation of a SHEV system was essential. Furthermore, special standards had to be adhered to as the thoroughfares were used regularly by people with disabilities. The SHEV system would also have to contribute to the day-to-day ventilation.



Solution: SHEV system in combination with natural ventilation

- **Glass constructions**

The old glass roof was renovated, after Brakel had satisfactorily restored a test section. The glass roof in the new build was extended and the glass thoroughfares were lengthened and extended on both sides to form a ring around the building.

- **Certified SHEV installation**

The efficient exhaust of smoke and heat via the roof and facade windows offer double protection. People who find themselves in the hospital during a fire can be sure of a safe escape route. The SHEV system also increases the chance of a successful entry by the Fire Department. The SHEV system comprises 150 Ventria rooflights, Inova facade windows, smoke screens and fire resistant partitions.

- **Natural ventilation**

The SHEV system also acts as a heat exhaust system to ensure a pleasant inner climate. Updraft ensures that the warm air is exhausted via the rooflights. A pleasant inner climate is maintained with 117 electronically controlled Inova opening lights in the facades of the connecting corridors.

Agreement on the type of SHEV system

As specialist in the field of smoke and heat extraction, Brakel offered advice concerning the fire safety solution and compiled the necessary Schedule of Requirements. Brakel also had extensive discussions with consultants, construction management and the Fire Department.

"Everybody speaks positively about the new appearance and inner climate"

Result

The renovation has made the hospital brighter. Daylight now penetrates almost all thoroughfares and connecting corridors. Lemmers says that the open areas are now extremely pleasant: "Everybody speaks positively about the new appearance. "The staff, patients and visitors: they find the new surroundings extremely pleasant!"

Success factors

- Expert advice.
- Good communication with the Fire Department, consultants and management.
- Certified SHEV installation including periodical maintenance to ensure continued operation.
- Daylight provides a more pleasant environment for staff and patients.
- Energy efficient - natural ventilation using updraft.



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