



## Durghorstplantsoen apartment complex

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

"A transparent, comfortable atrium encourages social interaction."  
**Marc Grandiek**, FKG Architects aan de Zaan

# Transparency and safety offers a pleasant environment for the residents

**Task: How do you adapt daylight, ventilation and fire safety to suit a sustainable living (care) environment?**

On instruction of Parteon public housing, FKG Architects aan de Zaan designed a striking complex with residential (care) apartments with the emphasis on daylight, safety and sustainability. The atrium is an important part of the complex. It ensures transparency and openness while offering a degree of comfort and a feeling of safety. It was decided at an early stage to consider the use of glass roofs, glass facades, awnings, smoke and heat extraction, controllable natural ventilation and maintenance.

Important aspects to consider included fire safety and the pleasant interior climate. Brakel needed to ensure that their systems were perfectly suited to the thermal retention systems. These cool the building in the summer and provide heat in the winter.



## Solution: integrated concept

- **Daylight system**

Brakel provided all customised glass roofs and facades.

- **SHEV installation**

Brakel was also responsible for providing the certified smoke and heat extraction (SHEV) system that ensures the efficient dispatch of smoke and heat via the roof. This ensures the safe escape route in the event of fire. The SHEV installation is a combination of Ventria opening lights (for exhaust) in the roof and glass Estra louvres in the facade (for air supply).

- **Natural ventilation**

The SHEV installation is also used for day-to-day ventilation. The ventilation system is opened or closed automatically depending on the interior temperature (controlled natural ventilation). This ensures a comfortable climate throughout all seasons.

- **Maintenance**

Brakel maintains all systems under a maintenance contract.

## Good coordination with the Fire Department

Brakel coordinates the fire safety in the public areas (the atrium and the glass covered corridors). The specialists at Brakel provided the system advice, wrote the Schedule of Requirements and maintained contact with the Fire Department throughout system approval and certification.

“Brakel pay great attention to detail and delivers a fine end product.”

## Result

The apartment residents are extremely comfortable in this light apartment complex. They find the inner climate extremely pleasant; the atrium has become a popular meeting place. This complex is also visually attractive. Brakel has paid great attention to detail to create the atrium, the glass facades, the SHEV and the ventilation systems in line with the architects' design.

## Success factors

- Expertise and experience with the integration of SHEV systems and ventilation systems in glass roofs.
- Optimal coordination in the preliminary stage.
- Careful attention to detail and customised systems.
- Good communication with the Fire Department.
- Sustainable glass constructions remain attractive.
- Involvement - even after project completion (maintenance).
- Well received by the residents.



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