

Comfortable and safe living



## Brakel® Residential Buildings Concept

# Comfortable and safe living

Residential complexes have become part of everyday life. These can be apartment buildings that house people of all ages, but also residential (care) homes for the 55+ category. The residents of apartment buildings want to be comfortable and safe. A good indoor climate and a (fire) safety are important ingredients.



### Central areas / connecting galleries and indoor climate

Residential buildings - new or renovated - are nowadays equipped with a large central areas or connecting galleries. These provide a pleasant atmosphere and a healthy environment. Daylight and indoor climate are playing an ever-increasing role.

### Proven effects of daylight

Daylight as a positive influence on the mood of individuals. Daylight reduces stress levels while improving general health. Research has shown that the older people get the greater the need for daylight. Furthermore, daylight is a energy-efficient as the need for artificial lighting is reduced.



### Indoor climate

How people actually feel in the building is largely attributed to the indoor climate. Temperature, humidity and ventilation can determine how comfortable people actually feel. Research has shown that an adequate supply of fresh air using natural ventilation has a positive influence on people. However in practice, the value of the indoor climate is often underestimated. A large percentage of climate systems underperform. This is the cause of comfort issues in 90% of the cases reported.



## Ventilation: healthy air and a pleasant temperature

Too little or inadequate ventilation increases the CO<sub>2</sub> levels and the temperature in a room leading to a decrease in performance. Brakel Atmos can prevent this by installing on-demand, controllable natural ventilation in large areas. Natural ventilation works by using updraft and provides an effective, silent and energy efficient climate control. Controllable ventilation also provides a constant air supply and avoids excessive energy loss. Using controlled ventilation. Natural ventilation is one other important advantage: the efficient exhaust of smoke and heat during a fire.

## Fire safety: integral solutions

It goes without saying that infirm residents should be able to leave a building safely in the event of a fire. An effective system for smoke and heat exhaust, prompt fire detection, the alerting of any people present and any fire services together with an efficient evacuation plan are of vital importance. Any fire safety systems in sections and/or residential areas, central areas and parking facilities should obviously be linked. This is why it is vital to address such issues at the earliest opportunity.

## Insight into performance

Brakel has created a unique program using simulation models to provide performance indicators based on temperature, the satisfaction of the building inhabitants and the energy consumption of the building. The physical properties of the building superstructure have been taken into account, along with the various control configurations for ventilation, the building orientation, the type of glazing, sunblinds and any use of solar energy. The use of simulation variables means that an informed choice can be made for the level of comfort and energy consumption required for the building, while also addressing the running costs.



[info@brakel.com](mailto:info@brakel.com)



[www.brakel.com](http://www.brakel.com)

