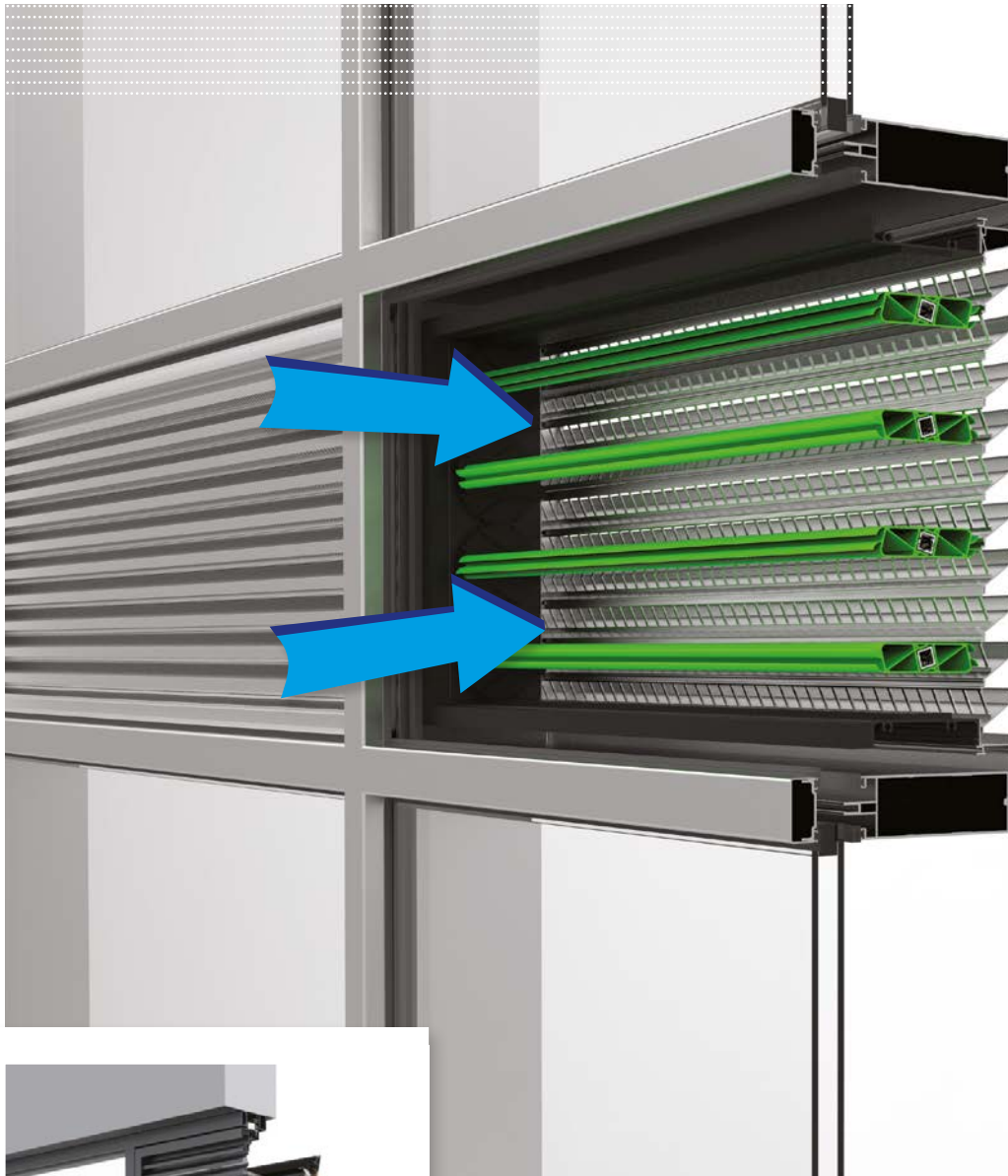


NEW

Ventilative cooling

Efficient cooling in a **natural** and energy-saving way



- Large volume flows of outside air provide cooling
- Intelligent control
- No artificial interventions needed (such as air conditioning)
- Integration with BMS possible

DUCO
Ventilation & Sun Control

HOME OF OXYGEN

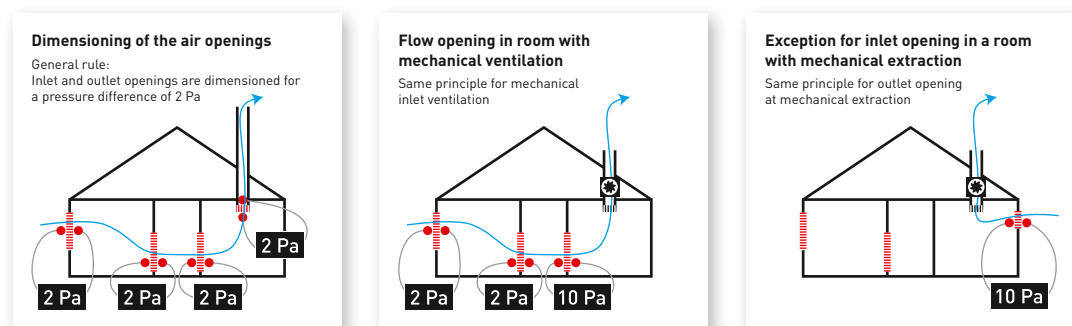
Ventilative cooling

'Free cooling' by means of intensive ventilation

Nowadays, airtight construction and good insulation are two key concepts that are becoming increasingly important in the construction industry, reducing unwanted energy losses as much as possible. However, this also means that the demand for heat decreases, while the need to cool a building increases. During the warmer (summer) months, the indoor temperature can soar. Not only due to excessive **direct solar gains**, but also through **internal heat gains** (lighting, electrical and thermal equipment or simply the presence of a large number of people in one room.) **Summer comfort** is therefore increasingly being included in a building's design requirements.

With its wide range of **(controlled) wall and window grilles** or **continuous louvre systems**, Duco offers an excellent way of controlling the indoor climate in a natural, efficient and energy-saving way. Without artificial interventions such as air conditioning. This is because by using large volume flows of outside air (intensive ventilation), a building can be perfectly cooled via **ventilative cooling** (free cooling), provided one or two guidelines are followed:

- A. Always use ventilative cooling in **combination** with good **exterior sun protection**
- B. When designing the building, bear in mind the **presence** of sufficient **thermal mass** in the building to store the outside air.
- C. Use the **correct pressure difference** for dimensioning the supply grilles.



We would like to highlight two products, which are perfectly usable throughout the ventilative cooling strategy: **DucoGrille NightVent** & **DucoGrille Close 105**



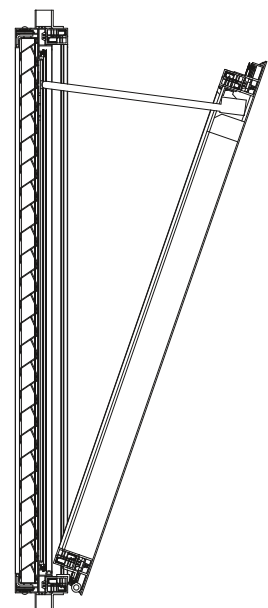
■ DucoGrille **NightVent** Glass-replacing ventilation hatch

The DucoGrille NightVent is a glass-replacing motorised ventilation hatch (for glass thicknesses from 24 to 48 mm).

The ventilation hatch consists of **a single module**, but contains **two essential components**. From outside, the DucoGrille NightVent is shielded by a **window grille** with perforated slats that keep out insects. The grille has also been tested against the applicable European regulations in **intensive tests** to measure wind and water repellency. In addition, the outside grille is also available in a vandalism-proof or burglar-proof version. The ventilation hatch can therefore be opened at any time, even if no one is in.

The insulated, completely flat and aesthetically refined **inside panel** integrates seamlessly with the interior. In addition, the **acoustic damping** ensures that the thermal value of the ventilation hatch is comparable to that of a closed window.

Thanks to the **large volume flow** (369 l/s*m² at 2 Pa pressure difference), this product is perfectly suited to the efficient cooling of any building. In addition, an **intelligent control** based on CO₂ and temperature measurements can open/close the ventilation hatch as necessary and can be connected to a building management system (BMS).



DucoGrille Close 105

Multileaf damper for custom intensive ventilation

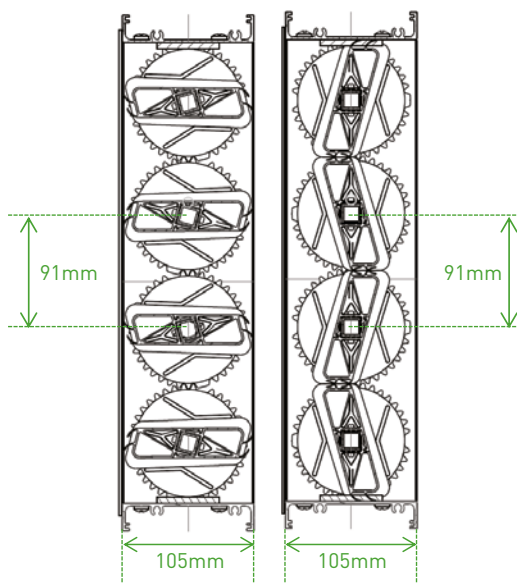


The DucoGrille Close 105 is a multileaf damper with a **large air flow** tailored to offices and schools.

The multileaf damper can be used as both a **supply** and **exhaust grille**. In the first instance, the DucoGrille Close 105 can be built into a wall or curtain wall and an optionally burglar-proof wall grille along both sides ensures an aesthetic finish. For optimum acoustic comfort, the **Duco Acoustic Panel** can also be provided as an option. These soundproofing slats are placed after the multileaf damper for perfect damping.

Thanks to the large flow rate (1200 l/s*m² at 2 Pa pressure difference), the DucoGrille Close 105 is also ideal for use to provide intensive ventilation or as part of the **(night) cooling principles** of a building.

The multileaf damper can also serve as an **adjustable extraction unit**, for example in combination with Duco's roof cowls. With a **limited depth** of just 105 mm, the multileaf damper can easily be installed in smaller rooms, both horizontally and vertically.



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Technical specifications

Technical specifications for DucoGrille NightVent

Width:	min. 300 mm / max. 2500 mm
Height:	min. 300 mm / max. 2500 mm
Depth:	115 mm
Slat pitch:	37.5 mm
Flow rate:	369 l/s/m ² (at 2 Pa)
Air density (when closed):	Qn50 = 3.6 m ³ /h*m ²
Water repellency (when closed):	Class 9a (EN 12208-EN1027)
Insulation value:	U = 1.5 W/m ² K
Control:	Actuator / BMS
Motor noise:	< 35 dB (A)
Operating temperature:	-25 °C to +60 °C
Material:	Inside and outside: Aluminium Al Mg Si 0.5 Thermal break: PVC Insulation: PIR

Technical specifications of DucoGrille Close 105

Length:	min. 400 mm / max. 1500 mm
Height:	min. 236 mm / max. 1237 mm
Depth:	105 mm
Slat pitch:	91 mm
Flow rate:	1200 l/s/m ² (at 2 Pa)
Air density (when closed):	Qn50 = 8.59 m ³ /h*m ²
Water repellency (when closed):	Watertight (EN 100027)
Insulation value:	U < 1 W/m ² K
Control:	Actuator / BMS
Motor noise:	< 35 dB (A)
Operating temperature:	-25 °C to +60 °C
Material:	Aluminium: Al Mg Si 0.5 Treatment: baked polyester powder coating (60-80 µm) slat: HD PVC

HOME OF OXYGEN

Duco supplies oxygen to every building naturally. Bringing fresh air in directly via the façade, without complex supply air ducts, is the ultimate guarantee for a healthy indoor climate.

The consumer's health is, therefore, central to Duco.

A well thought-out combination of basic ventilation, intensive ventilation and solar shading provide for an optimum air quality. Duco provides an innovative solution for residential properties, offices, schools or care centres where everyone feels at home.

A SOLUTION FOR EVERY SITUATION!

Discover our concepts in these brochures:



Wall and window grilles



Continuous louvre walls



Architectural solar shading

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