# CAR PARK VENTILATION PIONEER OF THE THRUST VENTILATION SYSTEM



## INTELLIGENT SOLUTIONS START WITH DESIGN

#### FIRST IN THE WORLD

In 1995, NOVENCO was the first to install a ductless ventilation system based on jet fans. As a pioneer in this field, NOVENCO has set a new standard for ductless car park ventilation systems around the globe. Over the years, NOVENCO has established a unique expertise in car park ventilation and today continues to be a market leader in developing and manufacturing ventilation systems.

#### **ELIMINATE DUCTWORK**

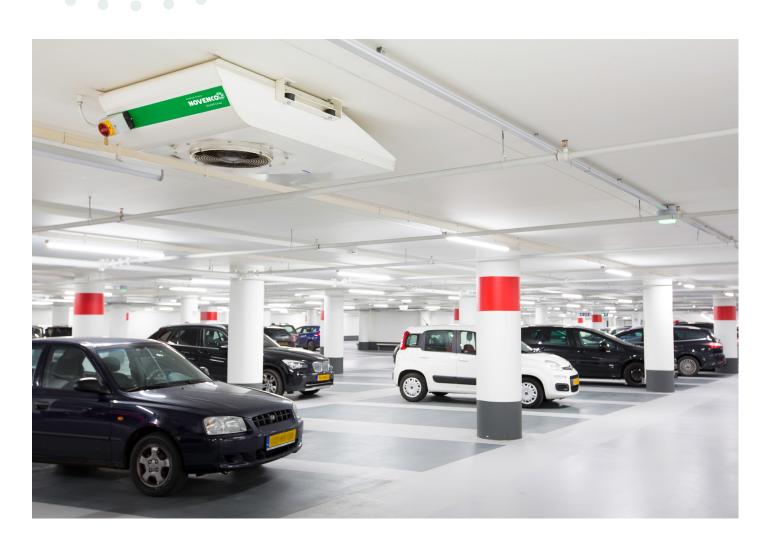
Using a NOVENCO thrust ventilation system eliminates the need for bulky ductwork. Not only does this result in savings on materials and space, but also in considerable savings in operational costs as the result of lower power consumption on the axial fans by eliminating the ductwork in combination with a well-designed control system.

#### **SMART CONTROL SYSTEMS**

The control system consists of a combination of detection systems and smart programmable control panels. The smart systems control all aspects of the ventilation system, from dampers to supply and exhaust fans and of course a suitable number of jet fans positioned throughout the car park. This system safeguards properly balanced airflows to provide a healthy and safe environment.

#### **CAR PARK JET FANS**

NOVENCO offers a wide range of car park jet fans from minimal installation height to ultra silent design. With the addition of the latest ZerAx® technology, NOVENCO can deliver highly efficient future proof ventilation systems.



### MEETING ALL REQUIREMENTS AT SIGNIFICANT LOWER OPERATIONAL COSTS

The NOVENCO thrust ventilation system offers numerous advantages over conventional ducted ventilation systems. The unique features of the system help to ease an otherwise complicated layout of services inside the car park.

#### THE THRUST PRINCIPLE

The jet fans deliver air at relative high outlet velocities, inducing surrounding air to prevent the buildup of high toxic gas concentra-

tions, such as for example, carbon monoxide (CO). The jet induces air from all layers in the car park, which eliminates the need for extract points at low and high levels. By using jet fans, a bulky, unsightly and often quite complex duct work is no longer needed. This also makes the solution ideal for refurbishment of existing car parks. The soffit mounted jet fans allow for flexible positioning and short installation periods.

For normal day-to-day ventilation the jet fans are operated at low speed, requiring only 150 W, resulting in substantial energy savings.



The NOVENCO thrust ventilation system meets all requirements for normal ventilation and smoke clearance in the event of a fire. Furthermore, in most cases the system offers a facility that is unavailable with conventional ducted ventilation systems. The different types of jet fans allow for very flexible systems capable of meeting requirements.



#### SUBSTANTIAL ENERGY SAVINGS

The lack of ductwork reduces the supply and exhaust fan pressures required and thus allows for a selection of fans with significantly lower motor power.

#### **CERTIFICATION**

All jet fans and axial flow fans have been tested and certified as smoke extract fans in the classes F200, F300 and F400 in accordance with the international standard EN 12101-3.







