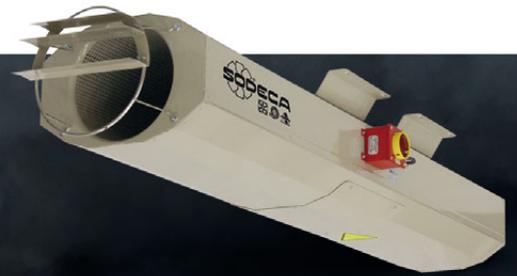


INTEGRATED SMOKE CONTROL SOLUTIONS

FOR CAR PARKS, STAIRCASES,
FIRE-FIGHTING LOBBIES AND ESCAPE ROUTES



EN-12101-3
Powered smoke and heat
exhaust ventilators for use
in Construction Works



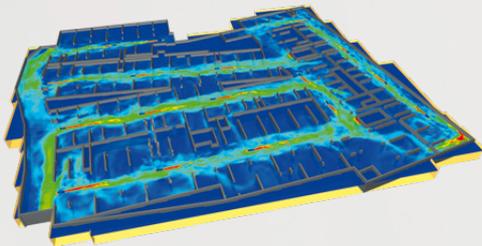
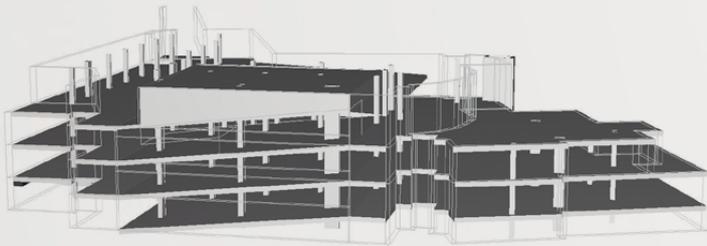
SODECA has focused its business activity on the manufacture of industrial fans, ventilation systems and smoke extract fans for fire protection since it was formed in 1983.

With the help of comprehensive research and development methods SODECA fans are installed extensively around Europe and many other parts of the world. SODECA has a commanding position as one of the best and most widely recognised fan manufacturers in Europe thanks to stringent quality control procedures to ISO 9001:2015.

The "human factor" is extremely important in achieving our objectives and we are proud to have highly professional people working at SODECA. People who can offer ventilation solutions as well as equipment for our customer's needs. Our customers can visit our 16,000m² production facility near Sant Quirze de Besora, where we manufacture ventilation equipment of the highest quality to ISO and AMCA standards.

This catalogue contains just a few of the options we can offer. Please contact us and our experienced staff will be at your disposal.

EXPERTS IN SMOKE CONTROL



SODECA has wide experience in the design and fabrication of equipment for ventilation and smoke exhaust in car parks.

Our projects department distinguishes itself from other companies by offering project design services and best-practise advice. It has specialist technicians who can deliver a comprehensive technical study, including sizing of equipment and required plant space.

They are experienced users of advanced Computational Fluid Dynamics (CFD) software, which they use to validate design parameters and simulate values such as smoke behaviour, temperature, visibility, air velocities and CO concentration.

COMPREHENSIVE SOLUTIONS

SODECA adapts to the needs of each client, offering comprehensive ventilation and smoke control solutions:

CAR PARK VENTILATION.

**PRESSURISATION FOR STAIRCASES
AND ESCAPE ROUTES.**

SMOKE EXTRACT CONTROL SYSTEMS.



In addition, SODECA offers the option of testing installations using **real (hot) smoke tests**.



CAR PARK VENTILATION

In modern buildings, car parks are now another feature of the building architecture. In many cases, they are the first space visitors enter in buildings such as shopping centres, entertainment complexes, offices and passenger transport hubs.

Correct car park ventilation plays an important role in the first impressions of a visitor. For this reason, they must be designed to satisfy the highest environmental quality standards. In other words, the lowest possible concentrations of contaminant gases must be achieved, whilst at the same time, eliminating foul odours.

But these are not the only factors. A high degree of safety must be guaranteed in the event of fire and car park ventilation is essential for providing adequate conditions for evacuation of occupants and to aid fire-fighting operations.



VISIBILITY

Improved visibility in the fire zone



AIR

Supply of fresh air to reduce smoke toxicity



TEMPERATURE

Reduction of air temperature in the fire zone

JET FAN SMOKE CONTROL SYSTEM

Jet fan smoke control systems are considered the most suitable ventilation solution for large, unobstructed spaces such as car parks and tunnels.

Installing this type of fan reduces the need to install air supply and extract ducts, improving visibility in car parks and increasing available clearance height. In the event of fire, the jet fans generate an air current that pushes smoke toward extract points.



JET FAN		OTHER		
				
THT/IMP	CI	THT	THT/HATCH	THT/WALL THT/WALL-F
Applications				
Ventilation for contaminant gas control. Ventilation in the event of fire.	Ventilation for contaminant gas control. Ventilation in the event of fire.	Ventilation for contaminant gas control. Ventilation in the event of fire.	Ventilation for contaminant gas control. Ventilation in the event of fire.	Ventilation for contaminant gas control. Ventilation in the event of fire.
Installation				
Indoor. Below ceiling	Indoor. Below ceiling	Indoor, in ventilation shafts or plant room.	On the roof	Façade
Safety switch				
Included in L and O versions. C version on request.	Included	On request	Included	On request
2-speed fan				
Yes	Yes	1 or 2-speed versions	1 or 2-speed versions	1 or 2-speed versions
Temperature classification based on EN 12101-3				
F300 / F400 ₁₂₀	F300 / F400 ₁₂₀			
Version without temperature classification				
HCT/IMP	CI-CO	HCT/HGT	HCT/HATCH	WALL/DUCT
Reversible fan version				
Yes	No	Yes	Yes	Yes



PRESSURISATION FOR STAIRCASES AND ESCAPE ROUTES

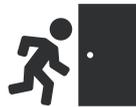
Pressurisation control systems prevent smoke from entering escape routes by pressurising those spaces. When the system is running, if doors are opened or in the event of air leakage, the system reacts by increasing the airflow rate. This guarantees that escape routes are always free of smoke in an emergency situation.

Escape routes include corridors, staircases, lifts and lobbies.



VISIBILITY

Visibility is ensured



EVACUATION

Safe evacuation of occupants



SAFETY

Easy access for firefighters



When selecting and classifying a system for a specific project, it is necessary to consider the building use, size and evacuation instructions in the event of fire. These criteria will help determine the necessary flow rate delivered by the pressurisation equipment.

The choice of system is very important as, this will also determine flow rates depending on the class.

PRESSURISATION SYSTEMS FOR ESCAPE ROUTES IN THE EVENT OF A FIRE

SODECA has the following solutions for **pressurisation** in staircases, fire-fighting lobbies and escape routes:

BASIC	ADVANCED	FULL RANGE		
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KIT SOBREPRESIÓN



PRESSKIT



**KIT BOXSMART
KIT BOXSMART II**



**KIT BOXPDS
KIT BOXPDS II**



HATCH PDS

Applications				
Staircases, corridors, lifts, lobbies	Lobbies	Staircases, corridors, lifts, lobbies	Staircases, corridors, lifts, lobbies	Staircases, corridors, lifts, lobbies
Installation				
Roofs, interiors	Only lobbies	Roofs, interiors	Roofs, interiors	Roofs
Inlet hatches management				
-	-	Yes	Yes	Yes
Leak detection				
-	-	-	Yes	Yes
Inlet smoke detection				
-	-	-	Yes	Yes
Compatible with fire cabinets				
-	-	Yes	Yes	Yes
Self-calibration				
-	-	-	Yes	Yes
Connection to BMS systems				
-	Yes	Yes	Yes	Yes
Spare fan				
Yes	-	Yes	Yes	-
Reversible for smoke extraction				
-	-	Yes	Yes	Yes
Control of multiple independent lobbies				
-	-	-	Yes	Yes
Built-in control panel				
-	-	Yes	Yes	Yes
Option of daily ventilation				
-	-	Yes	Yes	Yes
Operates in the event of loss of activation signal				
-	Yes	Yes	Yes	Yes



SMOKE EXTRACT CONTROL SYSTEMS

For air supply and smoke extract systems in fires, with or without jet fans, SODECA has the **BOXPARK**, which facilitate the integration of the ventilation system with CO and fire detection alarms.

The **BOXPARK** is adapted to common ventilation system needs in fires, and can also be customised for large projects with the **possibility of adding modules to the system**.

We also supply fire-fighting and maintenance control panels.

CONTROL SYSTEM BOXPARK CONTROL MASTER



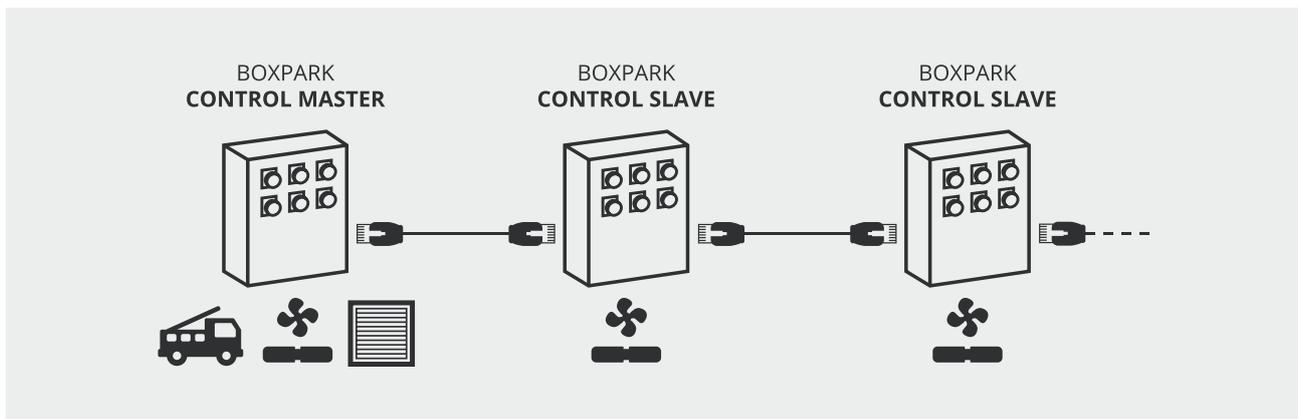
Direct communication with CO and FIRE stations



Fan control: air extract, supply and jet fans



Hatch control: air extract and supply



SMOKE EXTRACT AND CO CONTROL SYSTEMS

For automated operation of ventilation systems, depending on the specific needs of the car park.

This equipment controls the ventilation system operation, depending on the CO concentration or through the activation from a fire detection station. It also allows day-to-day programming of the car park ventilation system.



BOXPARK



CENTRAL CO

Applications	
Automated or manual ventilation control	CO concentration control
Installation	
In plant room	In plant room
Automated operating modes	
By fire detection. By CO detection.	Standard automation. Advanced automation with power savings.
Manual operation	Programmable activation levels
Speed selection (high/low). Fan selection.	Three levels with digital outputs. Analogue output for variable frequency drive.
Time programming	Programmable activation levels
Ventilation system (high/low). Operating periods.	1, 2 or 3 zones with up to 32 sensors per zone. Independent zone management.
Connection to	
MODBUS, RTU and CAN open systems	MODBUS
Ventilation control	
By contactors. Variable frequency control.	1, 2 or 3 progressive stages. Proportional control.

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