



60Hz VENTILATION SOLUTIONS



NUAIRE. FOR THE COMPLETE VENTILATION SOLUTION





WITH A RECORD OF QUALITY WHICH IS THE ENVY OF THE INDUSTRY...

...Nuaire is a British company with a long history of innovation in a field of ventilation and air movement solutions, and its products are known across the world for their superb quality and efficiency.

Founded in 1966, Nuaire has a long and much-admired heritage in developing and manufacturing ventilation products. The company's products are renowned worldwide, likewise their unrivalled customer service, and it is this combination which has ensured that Nuaire's products have been sold into more than 60 countries around the world, including in the Middle East, Europe, the USA and Asia.





CAR PARK VENTILATION HOW IT WORKS

With jet fans available in both axial and centrifugal versions, Nuaire's car park ventilation system has a number of benefits. Not only does the low depth unit save space and money by eliminating the need for complicated and expensive ductwork, but it is also extremely energy efficient as it monitors the air quality and operates the system at its optimum level, reducing the running costs by up to 40%. Also, fewer fans are required as they distribute the air over such a large area.



One of the biggest hazards in the event of a fire is that of smoke inhalation. Nuaire smoke rated control systems provide a flexible directional flow to respond to any fire location, containing, channelling and removing the smoke to facilitate safe evacuation and more effective fire fighting access.

Units have a unique mounting bracket to allow for quick and easy installation in two simple stages and inlet and outlet silencers that ensure low noise levels. Most importantly, all equipment is safety tested to EN12101-3 at both 300°/400°C for 2 hours.

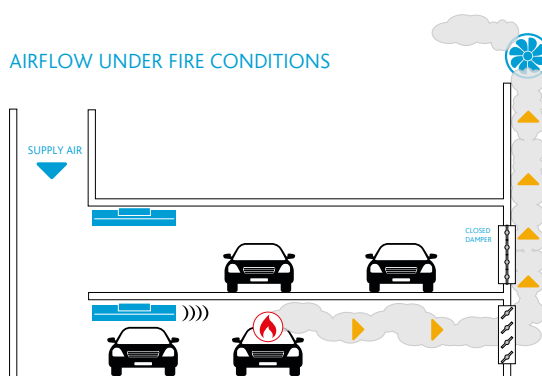
The carpark jet fan system is used to control and remove contaminants on a day to day basis, whilst ensuring that smoke is removed quickly and efficiently in the event of a fire. The system utilises a number of strategically positioned jet fans, mounted on the ceiling, that direct the fumes and smoke towards a designated point of exhaust.

This in effect creates a virtual smoke barrier ensuring quick and effective clearance whilst keeping the rest of the car park smoke free. This removes the need for complicated ductwork systems and optimises space.

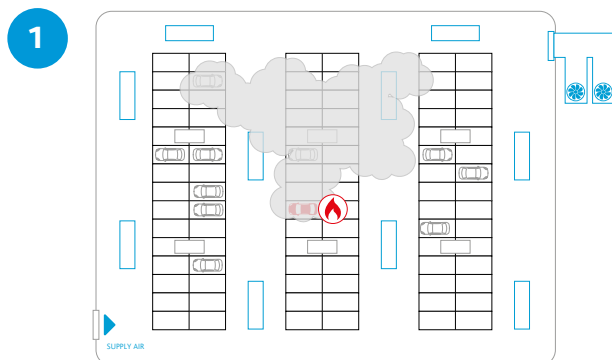
UNIQUE MOUNTING BRACKET



AIRFLOW UNDER FIRE CONDITIONS

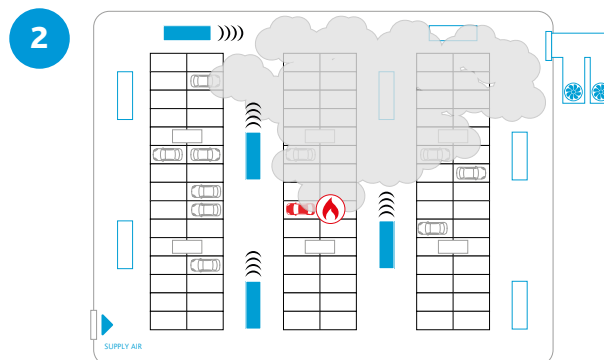


EXAMPLE OF JET FAN SYSTEM



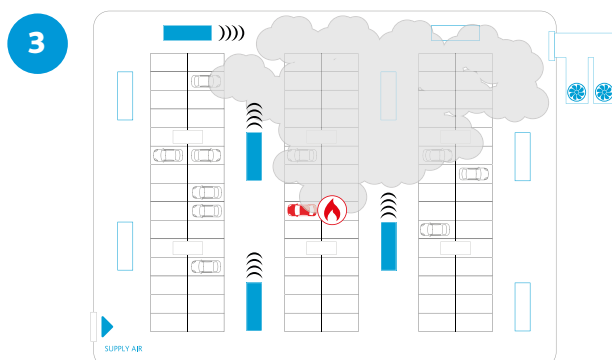
STAGE 1

In day-to-day operation the system runs in low speed ensuring carbon monoxide and other contaminants are within acceptable limits. Control is via strategically placed detectors. If a fire starts in one of the vehicles, and smoke spreads, the system starts.



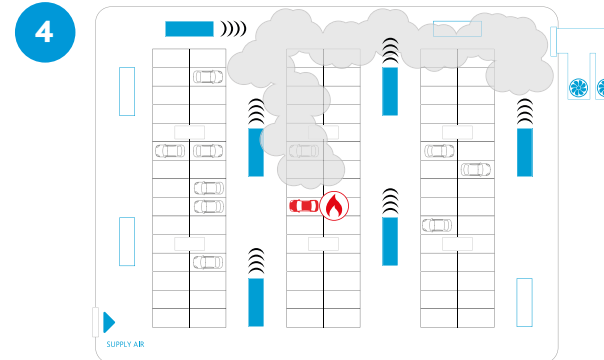
STAGE 2

The smoke detection system will identify the situation, activate the fire alarm system and then switch to smoke mode.



STAGE 3

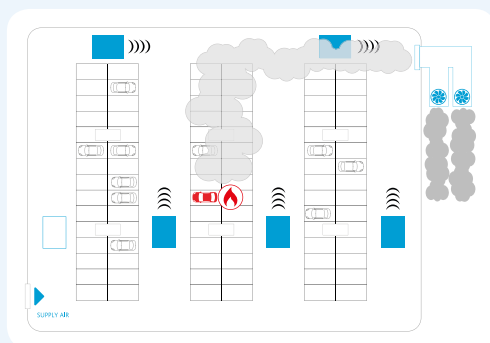
Smoke detectors throughout the car park identify the units which are located at the affected fire zone and increase their fan speed to maximum.



STAGE 4

The smoke is contained and directed towards the main exhaust unit, where it can be safely extracted into the atmosphere. This minimises the spread of smoke within the car park, keeping large areas clear and enabling the area to be quickly and safely evacuated.

WHY CHOOSE INDUCTION OVER IMPULSE?



INSTALLED COSTS

Reduced number of units, resulting in a reduced project installed cost.

BACKWARD CURVED IMPELLER

Suitable for high thrust and low noise applications.

LOW PROFILE

Ideal for reduced height area and can prove more suitable than a jet fan and ducted installations.

SUITABLE FOR HIGH CEILINGS

Draws the air upwards, providing a more effective method of extracting the smoke than a jet or axial installation.

THRUST

The induction range will provide a greater range of area (m²) coverage which can result in a lower number of units required to service the car park.



CAR PARK INDUCTION FANS SVTC & SVTC8

Car park ventilation induction fan systems are used to control and remove pollutants such as carbon monoxide on a day to day basis, whilst ensuring in an emergency situation smoke is removed quickly and efficiently to aid in the safe evacuation of individuals.

Nuair offer **50N** and **100N** thrust both in **50/60Hz** models.



KEY BENEFITS:

- **LOW DEPTH**
- **COST SAVING** - ELIMINATES NEED FOR DUCTWORK
- **TESTED TO EN12101-3**
- **LARGE COVERAGE MEANS FEWER FANS**
- **ISO 13350:2015**





CONSULTANTS SPECIFICATION



CASING

The complete units are of flush design to ensure no dust/debris build up, and suits most applications with a low profile. The case is made from galvanised steel (additional finishes are available).



MOTOR

Motors are totally enclosed and protected to IP55 with Class H insulation. Motors are available as either 2 speed or for inverter speed control, to work on a day to day basis and once off in an emergency situation.



CERTIFICATION AND OPERATING TEMPERATURE

Complete units are tested to BS EN12101-3.

- F300°C/2
- F400°C/2



IMPELLER

The impeller is a high efficiency backward curved centrifugal type manufactured from galvanised steel.



INSTALLATION

The units are designed for flush mounting ceiling installation and may only be fitted at the side brackets with certified anchoring bolts. Units are low profile to suit the majority of car park design constraints.

- 50N- 227mm
- 100N- 282mm



PERFORMANCE

The units are available in 4 thrust options:

- 100N
- 100/25N
- 50N
- 50/12N

This large coverage may result in fewer fans required.



AIRFLOW

Inlet guards are fitted for safety purposes and to prevent debris from entering the fan. The unit is fitted with a specifically designed airflow deflector to direct the jet stream from the fan at the required angle sufficient to overcome the natural buoyancy effect of the smoke.



SYSTEM DESIGN

Nuaire's induction fans SVTC & SVTC8 are typically used as part of a car park ventilation system to control and remove pollutants such as carbon monoxide and in case of a fire emergency. An induction system saves costs due to the elimination of ductwork. The induction fans are strategically distributed throughout the car park in accordance with Nuaire's specialist design.



ANCILLARIES

- Thermistors
- Pre-wired isolators
- Isolators
- Anti-condensation motor heaters

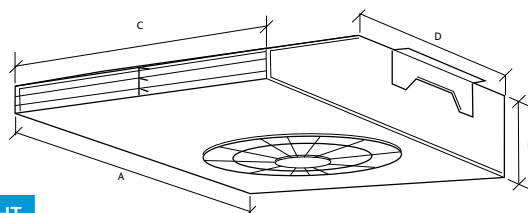


APPLICATIONS

Certified for use with sprinkler systems, contact Nuaire for additional information.

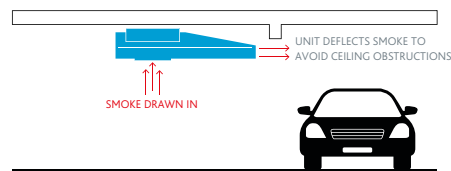


CAR PARK INDUCTION FANS SVTC & SVTC8



DIMENSIONS (MM) AND WEIGHT (KG)

MODEL	A	B	C	D	WEIGHT
SVTC-50	1265	230	790	710	100
SVTC-100	1900	282	1150	1150	195



CODING SVTC8-50T8G

SVTC8 50 T8 G
1 2 3 4

SAMPLE CODING

1. SVTC - Axis induction range
2. 8 - 400°C/2, no suffix - 300°C/2
3. 50 - Case size/performance range
4. T8 - Two speed 4/8 pole
5. No suffix - 400v 50Hz
G-460v 60Hz
J-380v 60Hz

400°C/2 - 50N

TECHNICAL AND PERFORMANCE DATA

FAN REFERENCE	60Hz			
	SVTC8-50G	SVTC8-50T8G	SVTC8-50J	SVTC8-50T8J
Thrust Newtons: Full/Half Speed	50	50/12	50	50/12
Airflow m³/s: Full/Half Speed	1.7	1.7/0.83	1.7	1.7/0.85
Motor Kw: Full/Half Speed	1.3	1.4/0.35	1.5	1.2/0.3
Protection Class	IP55	IP55	IP55	IP55
Insulation	H	H	H	H
Electrical Supply	460/3/60	460/3/60	380/3/60	380/3/60
Motor FLC amps: Full/Half Speed	3.06	3.14/1.33	4.07	4.35/1.88
Motor SC amps: DOL Full/Half Speed	14.7	20.1/4.39	22.4	23.5/5.83
Speed RPM: Half/Full Speed	1720	1720/860	1720	1720/860
Sound dBA @1m: Full/Half Speed	84	84/71	84	84/71
Material Finish*	Galv Steel	Galv Steel	Galv Steel	Galv Steel

400°C/2 - 100N

TECHNICAL AND PERFORMANCE DATA

FAN REFERENCE	60Hz			
	SVTC8-100G	SVTC8-100T8G	SVTC8-100J	SVTC8-100T8J
Thrust Newtons: Full/Half Speed	100	100/25	100	100/12
Airflow m³/s: Full/Half Speed	2.69	2.69/1.83	2.69	2.69/1.83
Motor Kw: Full/Half Speed	2.6	2.2/0.55	2.2	2.2/0.55
Protection Class	IP55	IP55	IP55	IP55
Insulation	H	H	H	H
Electrical Supply	460/3/60	460/3/60	380/3/60	380/3/60
Motor FLC amps: Full/Half Speed	5.94	5.2/2.13	6.17	7.64/2.89
Motor SC amps: DOL Full/Half Speed	30.4	36.9/7.03	33.9	39/10.1
Speed RPM: Half/Full Speed	1720	1720/860	1720	1720/860
Sound dBA @1m: Full/Half Speed	85	85/71	85	85/71
Material Finish*	Galv Steel	Galv Steel	Galv Steel	Galv Steel

*Other finishes available upon request

300°C/2 - 50N

TECHNICAL AND PERFORMANCE DATA

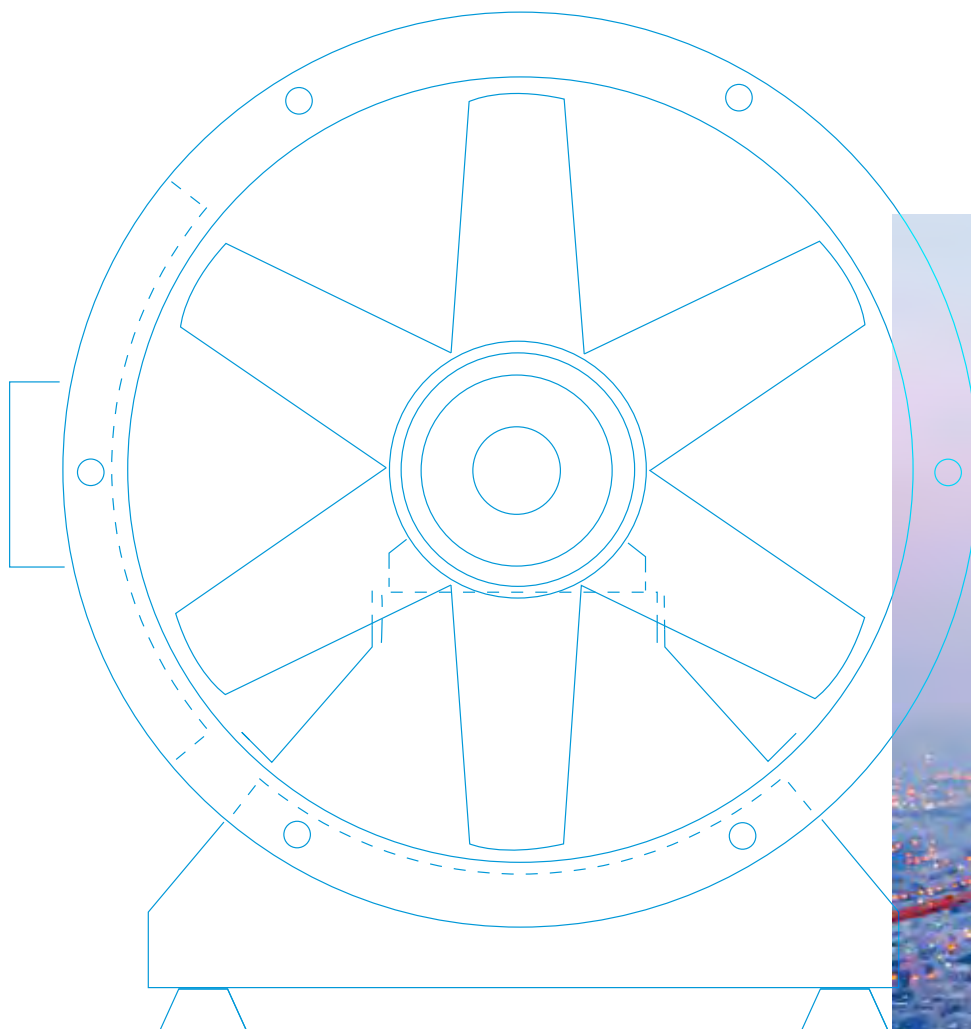
FAN REFERENCE	60Hz			
	SVTC-50G	SVTC-50T8G	SVTC-50J	SVTC-50T8J
Thrust Newtons: Full/Half Speed	50	50/12	50	50/12
Airflow m³/s: Full/Half Speed	1.7	1.7/0.85	1.7	1.7/0.85
Motor Kw: Full/Half Speed	1.3	1.4/0.35	1.5	1.2/0.3
Protection Class	IP55	IP55	IP55	IP55
Insulation	H	H	H	H
Electrical Supply	460/3/60	460/3/60	380/3/60	380/3/60
Motor FLC amps: Full/Half Speed	3.06	3.14/1.33	4.07	4.35/1.88
Motor SC amps: DOL Full/Half Speed	14.7	20.1/4.39	22.4	23.5/5.83
Speed RPM: Half/Full Speed	1720	1720/860	1720	1720/860
Sound dBA @1m: Full/Half Speed	87	87/71	87	87/71
Material Finish*	Galv Steel	Galv Steel	Galv Steel	Galv Steel

300°C/2 - 100N

TECHNICAL AND PERFORMANCE DATA

FAN REFERENCE	60Hz			
	SVTC-100G	SVTC-100T8G	SVTC-100J	SVTC-100T8J
Thrust Newtons: Full/Half Speed	100	100/25	100	100/25
Airflow m³/s: Full/Half Speed	2.69	2.69/1.83	2.69	2.69/1.83
Motor Kw: Full/Half Speed	2.6	2.2/0.55	2.2	2.2/0.55
Protection Class	IP55	IP55	IP55	IP55
Insulation	H	H	H	H
Electrical Supply	460/3/60	460/3/60	380/3/60	380/3/60
Motor FLC amps: Full/Half Speed	5.94	5.2/2.13	6.17	7.64/2.89
Motor SC amps: DOL Full/Half Speed	30.4	36.9/7.03	33.9	39/10.1
Speed RPM: Half/Full Speed	1720	1720/860	1720	1720/860
Sound dBA @1m: Full/Half Speed	88	88/71	88	88/71
Material Finish*	Galv Steel	Galv Steel	Galv Steel	Galv Steel

*Other finishes available upon request



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