

SMOKE VENT



FANTECH
VENTILATION



Emergency **Ventilation**

SMOKE VENT

introduction

Elta Fans are a major supplier of axial flow fans for smoke ventilation, with the SmokeVent range specifically developed for emergency smoke spill extract systems that may operate as part of the main extract system as dedicated fans for emergency clearance only, to overcome hazardous fire, smoke and fume conditions.

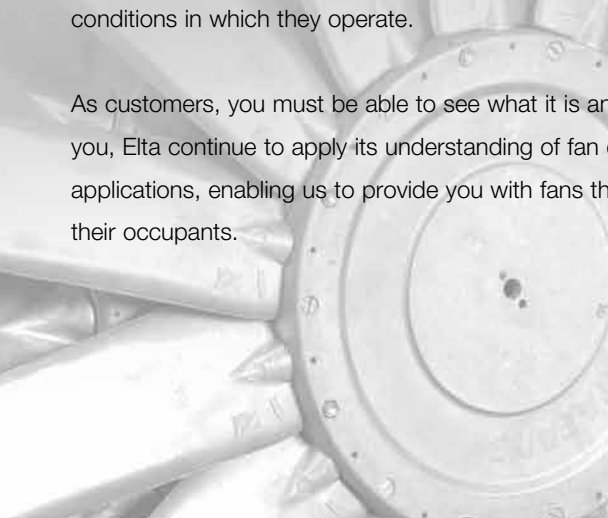
Technology will set its own limits, and at Elta we take special pride in exceeding them. Sometimes the solution is straight forward, sometimes it can be a tiresome, testing process. Nevertheless, Elta's development in Smoke Ventilation, by working to exacting standards, continues to set us apart through excellence in fan engineering and design.

emergency ventilation

In today's environment, if allowed to spread, Fire, Smoke and other noxious fumes can endanger safe means of escape, whilst causing widespread damage to buildings. By removing these and other harmful fumes, SmokeVent assists fire fighters in more readily identifying the fire source, enabling location of potential casualties and occupants still within the building for prompt escape, whilst also minimising smoke and fume accumulation.

With extensive experience in the design and application of Smoke Ventilation fans, SmokeVent products must immediately create understanding of their performance and characteristics, but above all, the benefits they provide for the demanding conditions in which they operate.

As customers, you must be able to see what it is and what SmokeVent can do for you, Elta continue to apply its understanding of fan engineering principles for smoke ventilation applications, enabling us to provide you with fans that assist in the protection of buildings and their occupants.



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features & benefits

SmokeVent fans are available from 250mm up to 2000mm diameter, supplied for free standing operation in ducted systems, although they are also suitable for installation in roof extract units.

Fans can be supplied as Single or Two Stage, Single or Two-speed operation, and with such a comprehensive range of standard sizes, SmokeVent provides the flexibility to supply models for new or refurbished projects.



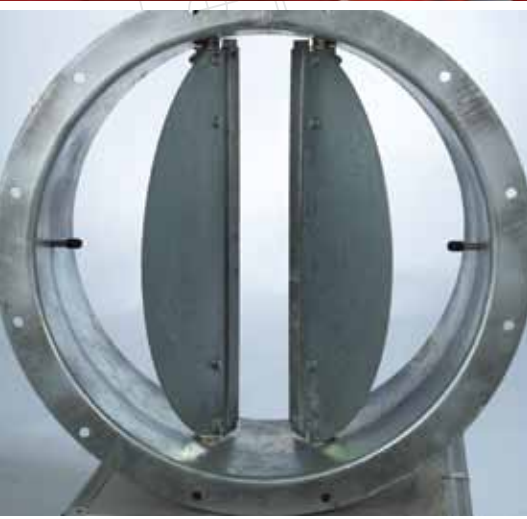
cost effective

The highly efficient impellers make this a very economical method of moving high volumes of air at low to medium pressures.

The SmokeVent range offers additional cost savings as it satisfies the requirements for both emergency smoke extraction and general daily ventilation in a single unit.

design appeal

The integral spun flanges allow for smoother airflow and added efficiency.

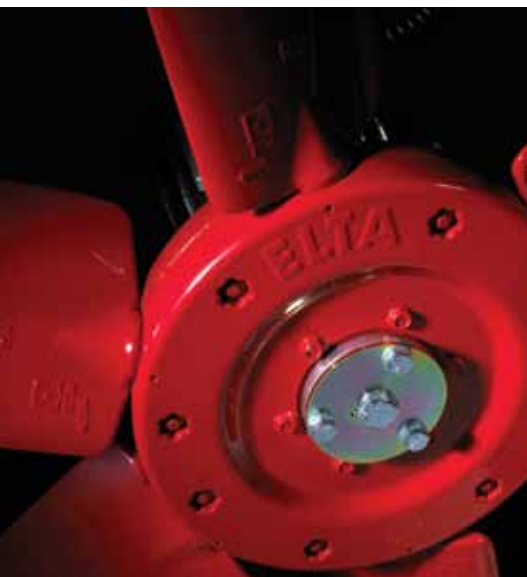


safety and control

A mechanical smoke extract system that is independent from external conditions allows emergency control of the situation by the fire services. The removal of smoke assists the safety of the occupants in the event of a fire.

accessories

Full accessory range including; mounting feet, anti-vibration mounts, matching flanges, flexible connectors, silencers, bell mouth inlets, non-return dampers and wire guards - All selected in advance to match the fan, which means this avoids any on site installation and fitting problems.



rapid delivery

SmokeVent long cased axial fans within the Elta SELECT range, shall either be available from stock or on short delivery.



warranty

Each SmokeVent comes complete with a 12 month warranty (excluding emergency smoke operation).

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specification

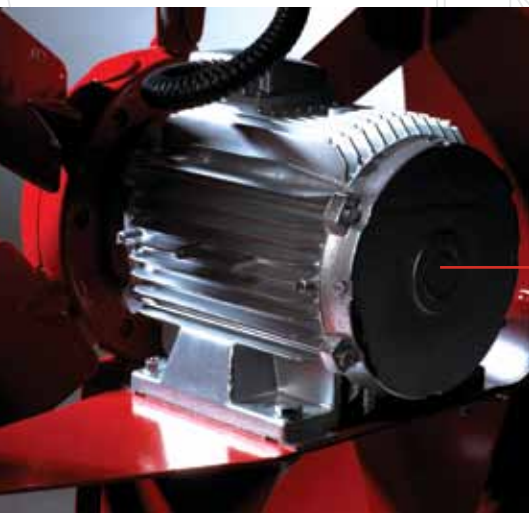


impellers

Adjustable pitch aerofoil impellers are provided with blades made from high quality pressure die cast aluminium (LM6), natural finish. Impellers are factory set at an angle to provide maximum performance. The hubs are manufactured from die cast aluminium alloy (LM24).

Assembled impellers will have their blades positively locked by pinning, for added security, for operation in the smoke regime.

Assembled impellers are to be dynamically balanced to Grade G6.3.



motors

Motors are to be foot or pad mounted totally enclosed metric type to IP55, with sealed for life bearings, standard industrial paint finish and Class H insulation to EN 60034-5, suitable for use at normal continuous duty and a once only use under smoke operation at 200 °C or 300°C for 2 hours up to 2000mm in diameter and 400°C for 2 hours up to 1250mm in diameter.

Flying leads are brought out via a temperature resistant conduit system, to an external IP55 terminal box for customer cabling interface



casings

The all metal fan casing provides a long lasting and robust construction.

The units have been constructed from a single sheet of steel, with both motors and axial impellers mounted within the length of the unit casing.

All casing parts are heavy gauge mild steel sheet, roll formed and welded, then hot dipped galvanised to BS 729 after fabrication.



quality management

Units are to be designed and manufactured with procedures as defined in BS EN ISO 9001: 2000.

Units are tested at elevated temperatures to the requirements of EN 12101 - 3: 2002.

All SmokeVent units are to be tested to ISO 5801:1997 (airside performance) and BS 848 Part 2: 1985 (sound performance).



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applications

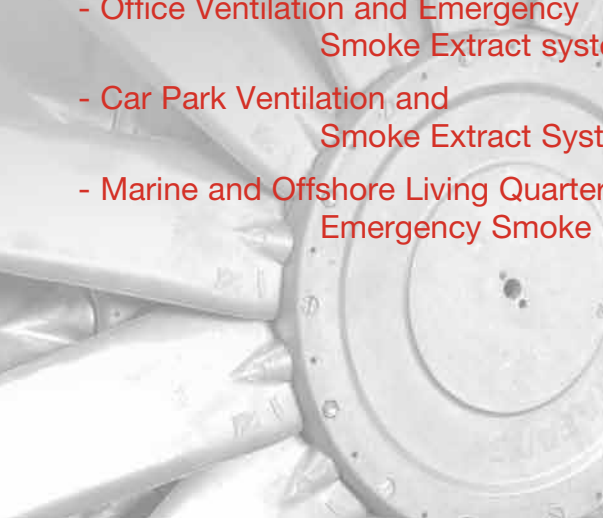
The major cause of death in the event of a fire is due to smoke inhalation. A smoke extract system is required to enable occupants to escape before being overcome by smoke and to facilitate access for fire fighters in order to extinguish the fire.

The same ventilation system is normally used to satisfy both the general ventilation and smoke control requirements. Smoke and heat exhaust ventilation systems are designed to:

- Keep access and escape routes clear of smoke.
- Aid fire fighting operations.
- Delay or prevent flashover or full fire development.
- Reduce the subsequent damage to the building structure and its contents.

Elta Fans provide a wide range of smoke ventilation fans that are specifically developed to satisfy the demands of 'emergency' ventilation, particularly during fires. There are a wide variety of applications for our products, which include:

- Atrium Smoke Extract
- Sports Hall Smoke Extract
- Emergency Stairwell Pressurisation
- Shopping Precinct Smoke Exhaust Systems
- Emergency Tunnel Ventilation
- Roof Smoke Extract Exhaust Cows
- Office Ventilation and Emergency Smoke Extract systems
- Car Park Ventilation and Smoke Extract Systems
- Marine and Offshore Living Quarters Emergency Smoke Extract







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