

Applied Technology

Our Capabilities



Privately owned and managed with enthusiasm, drive and determination, Elta Fans Applied Technology is an internationally recognised brand committed to leading the world in product and technical ingenuity through our operations in Europe, Asia, Africa and Australasia.

Elta Fans has been designing and manufacturing market-leading ventilation products for over four decades.

Guided by our founders' belief in putting the customer's needs first and their dedication to innovative engineering, we now field one of the most comprehensive and flexible ranges of fans available on the market today. This achievement is not only testament to the capabilities of our people, but also to our determination to exceed the unique challenges that ever-evolving technology brings.

From the Antarctic to the Gulf of Mexico, our fans can be found in OEM application across the world, including: agriculture, offshore oil and gas, power generation and defence.



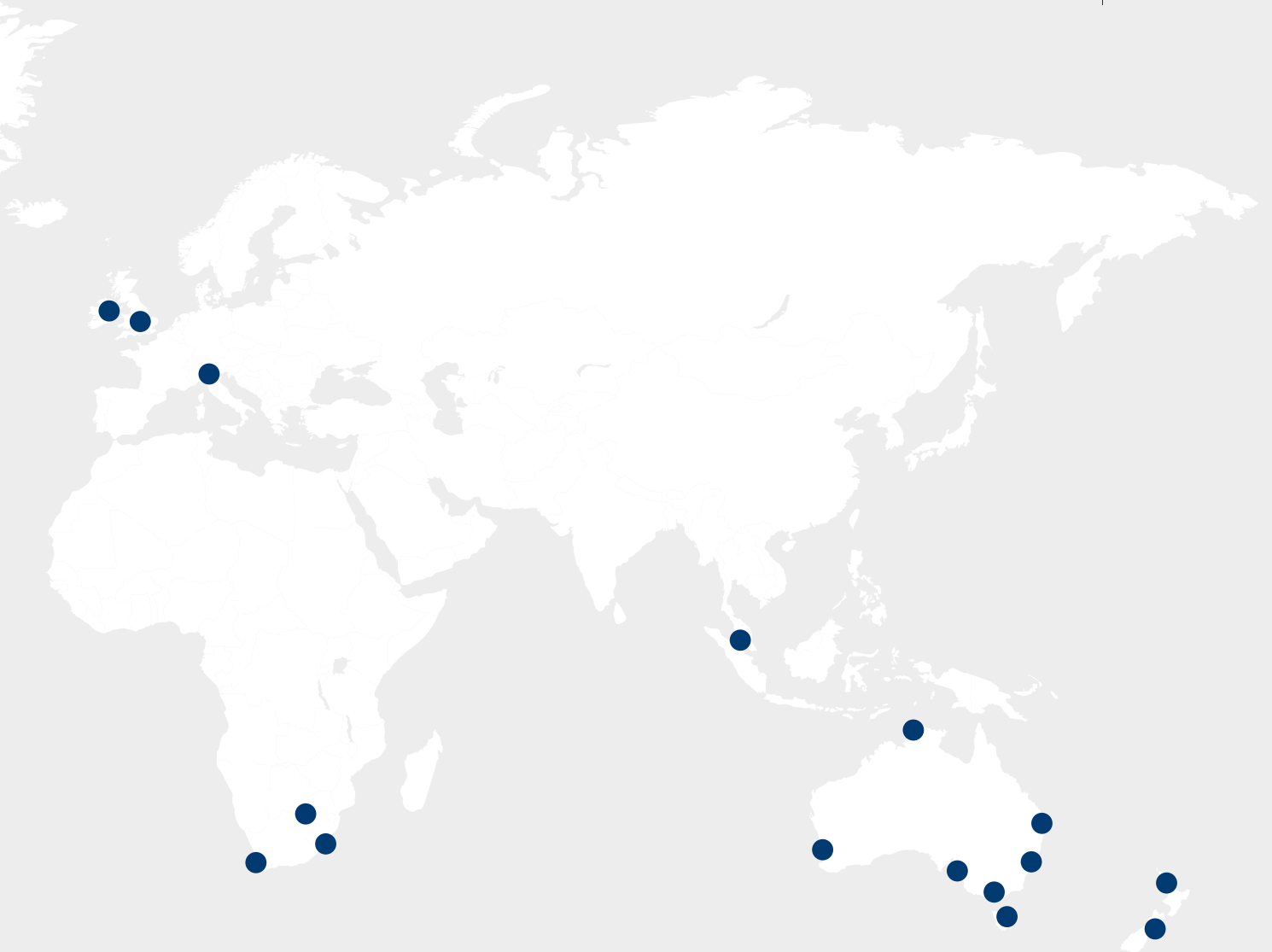


PART OF ELTA GROUP

Across all of our people, in all of our businesses, on all continents on which we operate, Elta Group has one purpose: To enhance life through air.

For 20 years we have been a proudly independent, family-owned group, but our foundations were laid over 45 years ago. Our foundations were built on an entrepreneurial spirit and a clear vision of meeting market needs and improving air quality. These have seen us become a leader in high-integrity solutions that move, filter, treat and distribute air, from agriculture to building services to applied technology. We're never standing still, always living and breathing our cause, and looking to the horizon.

eltagroup.com



Europe
Africa
Asia
Australasia
REGIONS

Building Services
Applied Technology
Agriculture
International
MARKETS

Fans
Air Handling
Heat Recovery
Filtration
Natural Ventilation
Acoustics
Air Distribution
Controls
Heating
Cooling
Welfare
Lighting
PRODUCTS





Our heritage

Established over 40 years ago by two pioneers of the industry, Elta Fans' foundations are built on a culture of innovation and engineering that continues to guide the company today.

Our heritage

1972

Roger Crook and John Snape begin by producing single-phase, long-case, axial fans for commercial ovens under the company name of 'Low Temperature Applications'.



1974

Occupying just 70m², the company's first production facility in Woking, Surrey, UK, is set up, allowing the product range to be extended into three-phase fans up to 1.2m in diameter.

[« Boundry Road manufacturing](#)

1979

Rapid expansion sees the company move into a new 500m² factory in Byfleet, Surrey. This expansion enables the company to establish its first dedicated design and engineering team.

1982

The premises are expanded to 800m² to keep pace with production requirements; sub-contracted sheet metal work is brought in-house. The Centraflow range of in-line, centrifugal fans — designed to prevent stalling in high winds — is launched for offshore applications.

1984

Following intensive development and investment, Elta Fans' first axial impeller is launched, providing Elta Fans with the ability to fully-manufacture a highly-competitive, axial fan unit. The product is shipped around the world, including to South Africa, Australia and the USA.

1991

The ongoing growth of the business allows Elta Fans to relocate to a custom-built, 1,200m² manufacturing and office premises in Fareham, Hampshire, UK.

This marks the start of a decade of substantial investment in state-of-the-art machinery, including Trumpf punching machines and Nodi flanging equipment, across all Applied Technology manufacturing sites. Allowing for more manufacturing processes to be brought in-house, ensuring optimal product quality from design through to production. The Fan Selection Programme is launched to market, providing customers with the ability to have full sound spectrums produced for their intended applications – an industry first.

[Custom-built premises in Hampshire »](#)





1976

Low Temperature Applications is renamed 'Elta Fans Ltd.'

« Elta Fans Byfleet premises

1986

Elta Fans becomes the only manufacturer in the UK to achieve full certification of its range to the new BS 848 pt 1 (airflow) and pt 2 (noise) tests.

1989

The first 'Compact Fan' range is launched, utilising the Brook Crompton 'V' Range motor and Elta Fans' own standard glass-reinforced plastic impeller.

Compact Fan »



1994

The Fareham premises are further expanded to 2,000m².

1995

With a dedicated manufacturing plant in Cape Town, Elta Fans' product range is launched in South Africa through fellow Elta Group company, Air Movement Supplies.

1996

The business becomes the principle operating company in the newly formed Elta Group Ltd.

Our heritage



1998

Elta Fans moves into a 4,000m², purpose-built facility alongside the existing Fareham building. This major investment includes a modern Research and Development laboratory, and a reverberation chamber for acoustic testing, providing the ability to test all products, in-house, to the latest aerodynamic and acoustic standards. The facility pushes product innovation to new levels, including the development of the world's first adjustable-pitch, mixed-flow impeller within the same year.

« Elta Fans Fareham premises

2004

Impulse fans for car parks are introduced to the range.

2005

The Fareham facility achieves Elta Fans' first EN 12101-3 Manufacturing Facilities for Smoke Ventilation accreditation.

2006

Elta Fans products begin to be manufactured and sold in Kuala Lumpur, Malaysia under the name 'Eltafantech'.

Elta Fans Building Services relocates into a new 5,000m² facility in Kingswinford, West Midlands, UK.

2011

A second dedicated test facility opens in Kingswinford.



2013

To meet changing international legislation, the core axial-impeller is re-developed for increased efficiency.

« LC/SC axial fans

1999

Elta Fans launches its range of Marine Fans designed for small boats and leisure craft.

In Dudley, West Midlands, UK, Elta Fans launches a new division dedicated to the building services market.

2000

The introduction of new blades, as well as 400mm and 550mm hub sizes, expands the impeller range to up to two metres in diameter.

2001

The addition of two new hub sizes (255mm and 350mm) further expands the scope of product selection.



2007

Additional investment in Nodi flanging equipment in Fareham and Cape Town strengthens Elta Fans' production capacity, ensuring consistently high quality and optimising manufacturing efficiency.

« [Nodi flanging machine](#)

2010

Installation of a new, state-of-the-art Trumpf TruPunch 2020 punch machine in Fareham and a Nodi flanging machine in the Kuala Lumpur facility supports the need for larger and increasingly complex components to meet the bespoke requirements of OEM customers around the world.

2015

Installation of a 5 tonne, twin hoist crane to increase production capabilities of larger fans inline with customer and market requirements.

Elta Fans Applied Technology brand is launched in Asia and Australasia to serve the regions' OEM customers, providing expert local-market knowledge.

[5 tonne, twin hoist crane](#) »





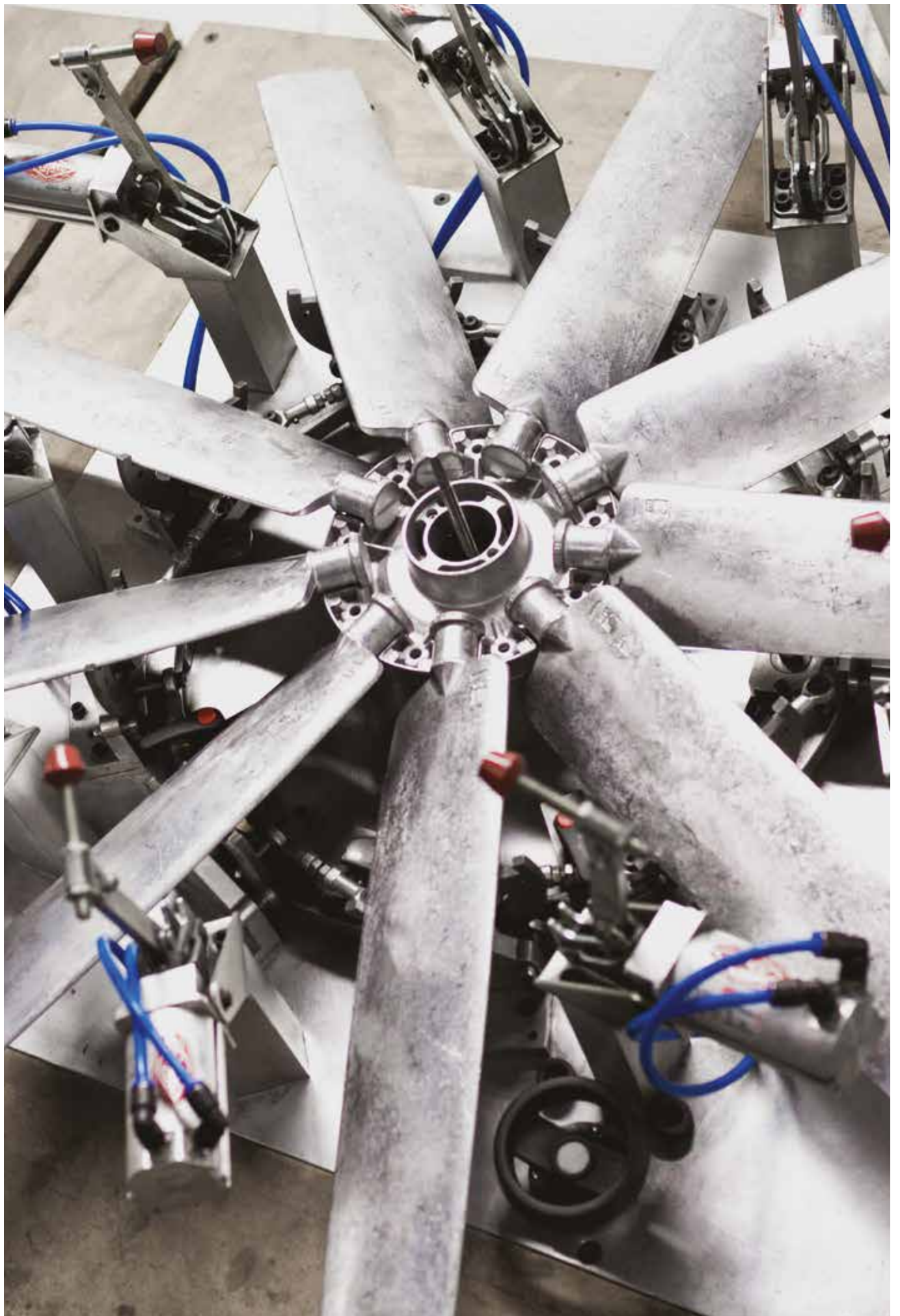


Right first time, on time, every time

Built around our leadership in specialist OEM market sectors, Elta Fans Applied Technology design, manufacture and supply standard and bespoke fans specifically for precision OEM applications around the world.

Combining unrivalled customer satisfaction with unmatched technical support, our customer-focused approach enables us to develop solutions of unprecedented precision for our customers' needs.

With dedicated industry experts, knowledgeable in specialist applications and international regulations, managing every project, the dependability of our solutions is equalled by the seamlessness of our customers' experience.



Innovation & design

With an internationally recognised brand, Elta Fans Applied Technology products are defined by our combination of bespoke designs, innovative engineering and exceptional performance.

Continuously expanding and advancing our capabilities, we embrace change, allowing us to position our business at the forefront of Research and Development to achieve technological firsts within the industry. We continually develop bespoke products in-house and have access to four Elta Group R&D facilities across Europe and Australia.

Furthermore, our design teams utilise market-leading software that reduces the costs of traditional prototyping and allows the production of detailed designs in the shortest possible time frame.

Our tools include:

Finite element analysis

Solid modeling

Computerised 3D design systems

Dedicated fan selection software

CFD analysis

Supported by these, our fan engineers use their expert knowledge to overcome the complex requirements of our customers and their markets, providing solutions that have been carefully tailored to every new situation and application.

Advanced manufacturing

We have a long-standing commitment to the pursuit of manufacturing excellence, exemplified by our attainment of accreditations such as the BS EN ISO 9001.

For dynamic balancing, automated cutting, punching and spinning processes, our manufacturing sites include state-of-the-art machinery from world leaders including Trumpf and Nodi, allowing us to undertake almost all of our manufacturing processes in-house.

Continual development and training of our people, from impeller assembly to the processing of sheet metal, ensures a flexible operation that is able to quickly adapt to changing production requirements.

This successful approach is mirrored in all of Elta Fans' manufacturing facilities worldwide to deliver consistent quality at a local level.

Sustainable development

Our products have been designed and manufactured to meet and exceed all energy efficiency standards in every market, reducing their running costs.

Minimising the energy consumption of our products through innovative designs and the latest technologies also allows us to maximise our contribution to a sustainable environment.



Fareham
United Kingdom



International capabilities

Elta Fans Applied Technology is a truly international brand. With manufacturing facilities across four continents and the support of our sister companies within Elta Group, our customers always have access to the highest standards of care, knowledge and flexibility.

Drawing on over four decades of experience, Applied Technology was the starting point on which the Elta Fans brand grew and diversified. Today, it remains a critical part of Elta Group, renowned for reliability and quality – and its products are found in applications everywhere from the Antarctic to the Mexican Gulf.

Kuala Lumpur
Malaysia



Cape Town
South Africa



Brisbane
Australia

Engineered products of the highest standard

Our stringent quality standards allowed us to become one of the first fan companies to be granted the BS EN ISO 9001:2000 certification. Today, all of our products are designed and manufactured to the latest BS EN ISO standards.

Furthermore, all of our products are strictly tested at our own dedicated laboratories to ISO 5801:2007 (Airside Performance), BS 848 Part 2:1985 (Sound Performance) and BS ISO 13347-2:2004 (Reverberation Room Method), enabling us to confidently provide accurate performance data for integration into customer OEM designs.

All of our products are thoroughly tested during manufacturing and again prior to despatch, with third-party witness testing also available.





Customer focused

The Elta Fans approach places customers at the heart of everything we do. Our UK businesses have over 1000 years of collective service, with every member of the team focused on delivering unrivalled customer satisfaction and comprehensive technical support.

Our customer service and sales teams are dedicated industry experts who have close working relationships with our customers, enabling us to understand developments taking place in their individual markets. Every customer is assured of a unique approach to help them meet the needs of their projects and we ensure that, no matter the query, our customers always speak to the person who best understands their application's requirements.





Products

The cornerstone of Elta Fans Applied Technology is our ability to provide customised solutions for precise requirements.

Elta Fans Applied Technology provides a comprehensive range of standard and specialist application products.

Utilising axial, mixed-flow and centrifugal technologies, our products are all designed around a variety of OEM air movement requirements.

We are committed to delivering high-integrity products built to the maximum attainable quality so our components and materials are carefully selected to ensure long-term reliability, sustainability and performance for our customers.



Long & short cased axial fans

A core product range of our business for over 40 years, today our capabilities and reputation in axial fan manufacturing are renowned in the industry. Ranging from a standard unit to ventilate a factory building, to major applications including electrical sub-stations, drying processes and refrigeration, we are able to provide products for a wide array of applications.

With a diverse range of design and manufacturing options, as well as a complete range of ancillaries and guide vanes to provide more efficient power consumption, our engineers can develop the perfect solution to our customers' requirements.

Over **160**
long and short
case models

Diameters
from **150mm**
to **2000mm**

10
hub sizes

**Single &
three** phase
50Hz or 60Hz
supply

Volume flow
rates from
0.20m³/s to
100.00m³/s

Alternative
blade & casing
material finish
options

Single or
two speed
motors

Contra
rotating for
high-pressure
applications

Variable
motor &
terminal
mounting

Wimes 3.03
specification
motors (water
industry spec/
standard)

ATEX & IECEx fans

Manufactured to meet the requirements of the ATEX Directive, IEC standards and EN14986, our comprehensive range of axial fans for hazardous applications carry the proper equipment marking for the region and zone they are designed to operate in.

Our ATEX fans are designed and built to the exacting Area, Zone and Category requirements of a given project and utilise components that are certified under both ATEX and IECEx. Additionally, our manufacturing capabilities allow us to meet specific overseas hazardous classifications with a variety of flexible component options.

Diameters from **315mm** to **2000mm**

Long & short case variants

Belt-driven construction

Bifurcated, plate & cased construction

Specially certified terminal boxes

Spark minimising track

Specialist paint treatments

Aluminium, stainless steel or carbon impellers

Gas

Area – Zone 1 gas category 2G with electrical equipment Ex d, Ex de & Ex e
Area – Zone 2 gas category 3G with electrical equipment Ex nA

Dust

Area - Zones 21 & 22 category 2D & 3D

Thermistor protection & **specialist motors**





Plate fans

Manufactured internationally across our sites and those of our sister companies in Elta Group, the proven reliability and performance of our axial plate fans, along with their flexible construction options, have made them the preferred choice for a broad range of standard and specialist applications.

Each plate is manufactured from mild steel, features the latest in impeller technology and, for a complete package solution, also has a dedicated range of ancillaries and controllers.

9
models

Diameters
from **315mm**
to **800mm**

Epoxy
coating

**Explosion
proof**
motors

Standard
three phase
motors

AC & EC
models

Belt drive fans

Elta Fans are able to offer cost effective belt drive fans for when it is essential that the motor be outside the airstream. Products can be designed for safe or hazardous area (IEC or NEMA) applications.

Fan casings are constructed to meet the most arduous conditions and, as standard, are manufactured from mild steel and then hot dip galvanised to BS EN ISO 1461:2009.

Diameters
from **315mm**
to **2000mm**

10
hub sizes

Single or
two speed
motors

Alternative
blade & casing
material finish
options

Single or
dual belt
drive options

Multiple
groove belt
drive pulleys

Belt
tensioning
mechanism

**Single &
three** phase
50Hz or 60Hz
supply

Volume flow
rates from
0.20m³/s to
100.00m³/s





Bifurcated fans

Elta Fans' bifurcated axial fans are direct-driven units that were specially developed for handling hostile air conditions including hot air, gases and corrosive fumes.

Manufactured to the highest quality from mild steel and hot-dip galvanised to BS EN ISO 1461:2009, the range is available for standard and high-temperature applications. Our bifurcated range delivers a wide selection of air performances, including higher-pressure models.

Diameters
from **400mm**
to **1250mm**
(CYL)

Diameters
from **250mm**
to **630mm**
(CON)

150°C (CYL) &
200°C (CON)
operating
temperatures

Alternative
casing
materials &
finishes

BASEEFA
or other flame
proof approved
motors

50Hz or
60Hz
supply

Car park fans

We manufacture a range of fans including axial and centrifugal variants for both general ventilation and emergency situations in car park applications.

Our JetVent range includes induction and impulse ventilation models specifically developed to operate as both general ventilation and for once-only, emergency extract mode at temperatures of up to 400°C.

The product design eliminates the requirement for ducted systems, making efficient use of the limited space of enclosed car parks, in addition to reducing power consumption and the associated running costs.

**20N, 50N
& 100N**
sizes

Truly
reversible or
unidirectional
airflow

AC
motors
available

All impulse
fans **300/2**
or **400/2**

Isolator switch
or terminal box
variants

Flanged or
unflanged
units





Smoke fans

Elta Fans are a major supplier of axial flow fans for smoke ventilation, with the SmokeVent range having been specifically developed for emergency smoke extract systems.

Our standard range can operate as part of the main extract system, or as dedicated fans for emergency clearance in hazardous fire, smoke and fume conditions. With four facilities certified to EN12101-3 Manufacturing Facilities for Smoke Ventilation, Elta Fans can supply units tailored to regional and project specifications as required.

Diameters
from **315mm**
to **2000mm**

Single or
two speed
operation

Single or
two stage

200°C,
300°C, 400°C
operating
temperatures

A range
of motor
mounting
arrangements

Marine fans

Our marine fans are designed in close co-operation with marine architects and builders to provide compact designs with high performance that can cope with rigorous marine conditions. They can be manufactured to meet the requirements of the major marine classification authorities including Lloyds, DNV and ABS.

We offer custom-built fans for special requirements, a standard range of centrifugal fans developed for battery rooms and axial cased fans for wider ventilation applications including engine rooms.

Hydraulic &
pneumatic
fans

Single or
three phase
available

50Hz or
60Hz supply

12V - 220V
DC to suit
customer
application





A silhouette of an offshore oil rig against a bright sky, with the ocean in the foreground. The rig's complex steel structure is visible, including a tall derrick and various platforms. The sky is a gradient of light colors, suggesting dawn or dusk. The water in the foreground is dark with some ripples.

Industries & applications

Elta Fans products can be found in diverse OEM market applications around the world.

Our experienced project teams understand the complex specifications that our customers require and so always ensure the final product solution is perfectly engineered for its purpose.

Industries & applications



Agriculture & Food

We supply the agriculture and food processing industry with a range of axial flow and mixed flow fan configurations. Our products are engineered to meet market demands for production, storage, drying and transportation, all the way through to the retail environment.



Offshore, Oil and Gas

Offshore applications have diverse and demanding environmental conditions with stringent quality and safety requirements. Our range and flexibility in manufacturing allows us to design and engineer products of the highest specifications for use in this sector. From the Thunder Horse production platform in the Gulf of Mexico to the Azeri oilfield in Azerbaijan, our axial fans can be found on operational platforms around the world.



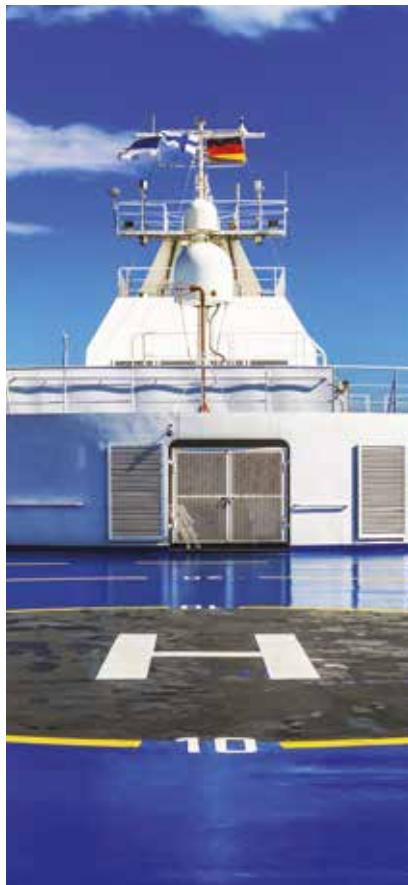
Marine

From small leisure boats to hazardous naval applications, fans can be supplied from a standard range or can be custom-built with approved motors or specialist materials for a range of different projects.

Industrial Plants

Many industrial plant processes are extremely energy intensive and generate high quantities of waste heat. Our fans have been engineered to exceed international energy efficiency standards and to operate with minimal power consumption over a long service life.

The diverse range of applications and environmental loads provide engineering challenges for OEM manufacturers. Elta Fans provide units made with specific corrosion resistant materials and finishes to exacting specifications that are tolerant of toxic and unstable compounds ideal for this complex market.



Defence

Elta Fans Applied Technology recognise that safety is of the utmost importance in order to protect personnel in this sector. Providing a well-designed and easily maintained ventilation system is critical to a safe and comfortable work environment.

We work in conjunction with military OEM manufacturers to design and engineer fans for the most arduous environments, including corrosive seas, chemical/biological contamination, explosive atmospheres, high temperature emergency conditions, and high-shock combat circumstances.

Power Generation

Designing and manufacturing to exacting site requirements has made Elta Fans Applied Technology a leading supplier in power production applications, such as CHP, gas turbines, generator cooling and acoustic enclosures. We are able to supply products engineered specifically for operation in remote locations and demanding climates and environments.



Industries & applications



Refrigeration

Elta Fans has considerable refrigeration expertise and is able to provide solutions to meet stringent requirements for sound, efficiency and operating temperatures within this sector. Our fans have been supplied to compressor, chiller and condenser manufacturers for integration into their OEM designs for applications including blast chillers, condensers and food storage.



Transportation

Good ventilation is an essential part of the planning process for the transport sector, with a need for series-produced fans operating with high reliability for safety and passenger comfort. Meeting the diverse and changeable airflow requirements, Elta Fans equipment can be found on the latest high-speed rail networks, underground applications and in large-scale tunnel projects.



Hazardous Area and Emergency

Elta Fans manufacture a range of critical operation products dedicated to the preservation of human life, buildings and equipment. From induction and impulse car park technology, emergency smoke extract fans, axial ATEX units and bespoke anti-explosion fans, our engineering team review every project in detail to ensure they provide the highest performance possible.



Mining

Mines and quarries require fans for applications including input ventilation, dragline ventilation, exhaust gas systems, as well as dust and fume extraction. Our range of fans, including axial-flow units and explosion-proof fans, are suitable for harsh environments and corrosive atmospheres, and are engineered with the safety of mine operatives in mind.

Accreditations

Elta Fans are committed to conforming to the highest standards. We hold a number of internationally recognised accreditations and certifications, including:

BS EN ISO 9001

Kite Mark – BS EN12103-3

LPCB

ATEX & IECEX

CompEX

We are also active members of professional organisations that help to shape and direct the research, legislation, trends and issues of the present and future:

FETA

FMA

EVIA

CIBSE Patrons

HEVAC Association

BSRIA

AMCA

All welders are coded to the following:

ASME Boiler & Pressure Vessel Code – Section IX (welding procedure qualification records & individual welder performance qualifications)

BS ISO 15614-1:2004 A2:2012 (welding procedure qualifications records)

ISO 9606-1:2013 (individual welder performance qualifications)

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A MEMBER OF  ELTA
GROUP

