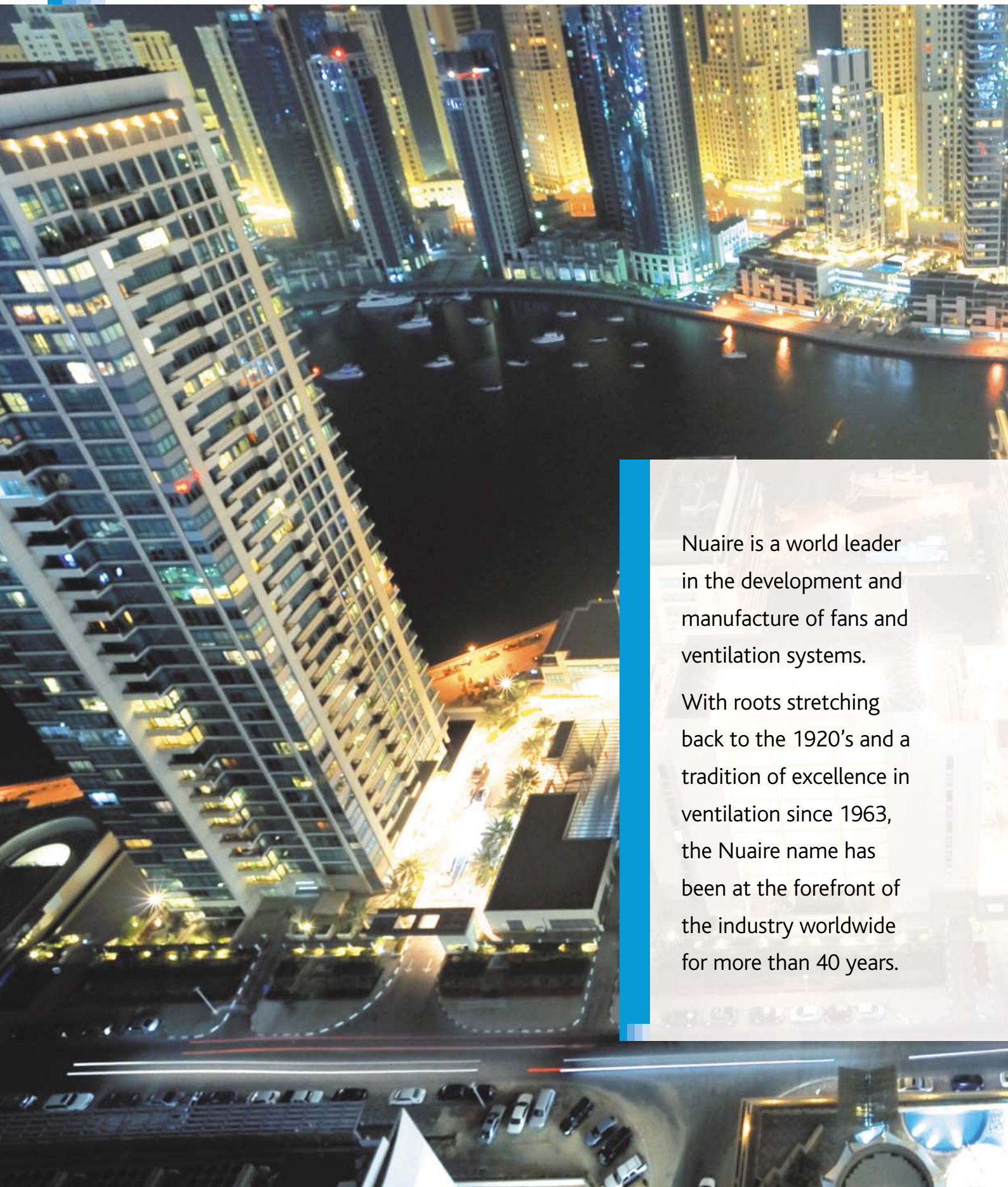


nuaire



FOR THE COMPLETE VENTILATION SOLUTION
WORLDWIDE

NUAIRE'S PEDIGREE



Nuaire is a world leader in the development and manufacture of fans and ventilation systems.

With roots stretching back to the 1920's and a tradition of excellence in ventilation since 1963, the Nuaire name has been at the forefront of the industry worldwide for more than 40 years.



With its roots in fans and mechanical ventilation products, Nuaire has progressively expanded its range and extended its capability to encompass technologies at all levels of ventilation solutions. It is the only company able to offer the complete ventilation solution for the built environment.

The company is renowned worldwide for its expertise, commitment to innovation and the outstanding quality of its products and customer service. People are at the heart of Nuaire, and the company has over 450 staff at its UK headquarters and has technical sales engineers in all major cities throughout Britain, as well as dedicated partners across the globe, including an office in the middle east. Its committed staff include leading experts who are constantly setting new standards for the industry by developing new, innovative products in the company's research and development department – the largest and most advanced in the UK.

This passion for excellence ensures a large, loyal and growing customer base in the UK and overseas and has been recognised by numerous awards.

QUALITY

Nuaire embodies the 'gold standard' of quality, which has earned British engineering and manufacturing its reputation for excellence around the world. Indeed, Nuaire was the first fan manufacturer in the world to achieve the quality standard ISO 9001, and its commitment to quality remains embedded in all aspects of its operations.

Business is growing by 15% annually and the company is on course to double in size within four to five years, mainly through the development of innovative new products, which set the standards for energy efficiency and reduced carbon emissions.



VENTILATION SOLUTIONS



QATAR NATIONAL CONVENTION CENTRE - DOHA, QATAR

Considered the finest convention facility in the Middle East. Iconic design and cutting edge facilities in a World first green technology venue. The first building of its kind built to the gold certification of U.S. green building councils LEED.

VENTILATION: HIGH TEMPERATURE SMOKE EXTRACT SYSTEMS AND CENTRIFUGAL SUPPLY AND EXTRACT FANS



SWISS RE - LONDON

London's first ecological tall building and built in a radical approach - technically, architecturally, socially and spatially the building uses half the power a traditionally shaped tower would consume. It rises 41 storeys and provides 76,400m² of accommodation, including offices and a shopping arcade.

VENTILATION: ECOSMART BOXER, ECOSMART XTRACTOR, ECOSMART SQRUBO, ECOSMART TWIN FAN



OMAN ARAB BANK - OMAN

The Oman Arab Bank New head office Building reflects OAB's image and the Sultanates culture with a blend of Arab architecture and customer centric design. With a construction cost of £16 million, the building comprises of 22,000 square meters.

VENTILATION: TWO SPEED CIRCULAR CASED HIGH TEMPERATURE AXIAL FANS AND ECOSMART TWIN FANS



MILLENNIUM STADIUM - CARDIFF

The Millennium Stadium is Cardiff's most famous landmark by some distance. The magnificent 74,500 seat, sliding-roof stadium was completed in 1999 at a total cost of £126 million. It was built to provide a new home for Welsh rugby and football internationals, and of course to host the world rugby world cup.

VENTILATION: ECOSMART BOXER, ECOSMART TWIN FAN



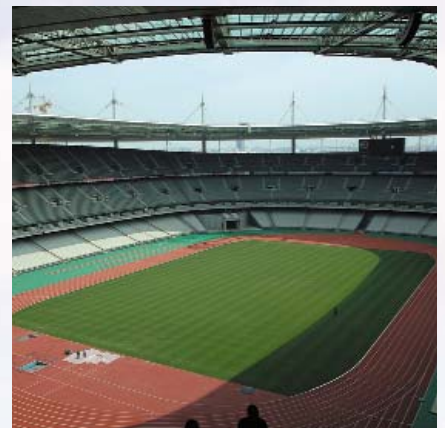
CHEK LAP KOK AIRPORT - HONG KONG

Chek Lap Kok is one of the world's largest airports and by 2040 it will handle 80 million passengers per annum. One of the most ambitious projects of modern times, the land on which the airport stands was once a mountainous island. The 100m peak was reduced to 7m above sea level and the island expanded to 4 times its original size.

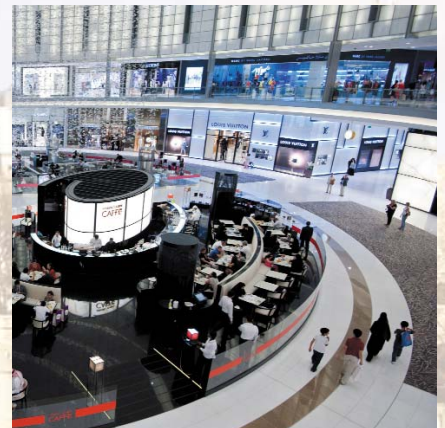
VENTILATION: NUAIRE PROVIDED VENTILATION THROUGHOUT INCLUDING AXIALS UP TO 2 METER DIAMETER



NEW DELHI METRO - DELHI, INDIA



STADE DE FRANCE - SAINT DENIS, FRANCE



DUBAI MALL - DUBAI

The Dubai Mall is the largest shopping mall in the world and comprises a 12.1 million square foot area, consisting of both residential and retail facilities. The actual mall covers the equivalent of 50 international soccer pitches.

VENTILATION: NUAIRE PROVIDED OVER 700 VENTILATION FANS ON THE PROJECT, OVER 300 OF WHICH WERE HIGH TEMPERATURE RATED FOR SMOKE EXTRACT

NUAIRE DELIVERS

Nuaire is renowned for its attention to detail and has over 30 years experience in delivering Nuaire equipment from the UK to worldwide destinations.

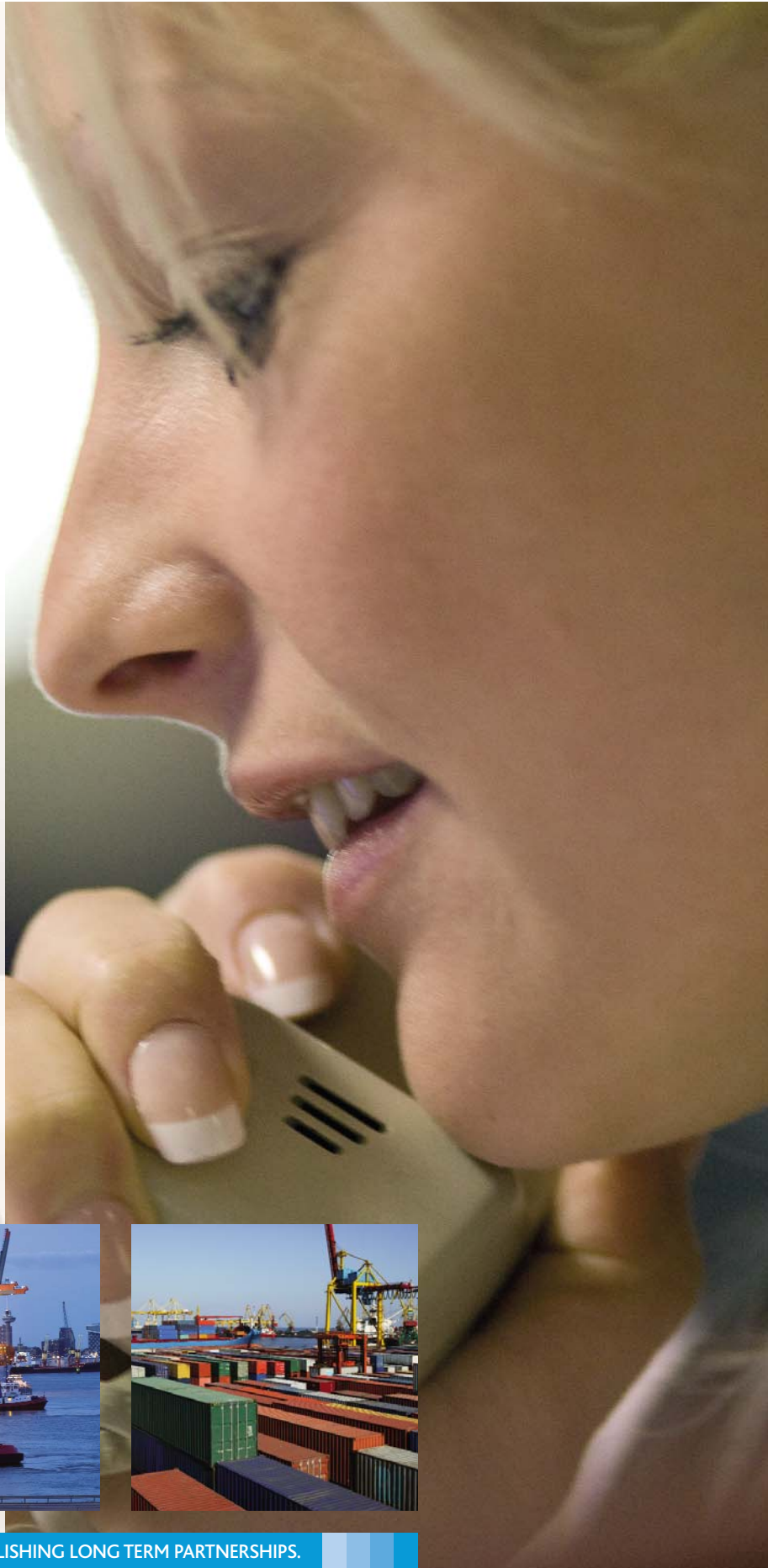
Nuaire has a dedicated customer service team working to ensure the highest standards demanded by the export market are met, ensuring that your goods arrive on time and in pristine condition.

DELIVERING TO YOU

An expert team of partners, covering countries and regions around the world, provide a dedicated point of contact for overseas customers, providing a customer care delivery package, which sets a new standard for the ventilation industry.

All of Nuaire's component suppliers are committed to ensuring our schedules are met so that we can meet your requirements.

- Key components such as high temperature motors and car park impulse jet fans are kept in stock in our factory in the UK, which means that you receive the best possible delivery dates
- All goods are expertly secured by a team of professional packers ensuring your equipment is received in pristine condition ready for installation
- Partners with all major shipping lines and airlines ensuring the quickest most cost efficient deliveries
- All deliveries co-ordinated to meet your specific requirements and construction programme
- Specialist team fully conversant with all documentation requirements ensuring you have a smooth trouble free process from official order right through to delivery at your site
- Full members of the UK's Institute of Export



NUAIRE IS PASSIONATE ABOUT CUSTOMER SERVICE & ESTABLISHING LONG TERM PARTNERSHIPS.

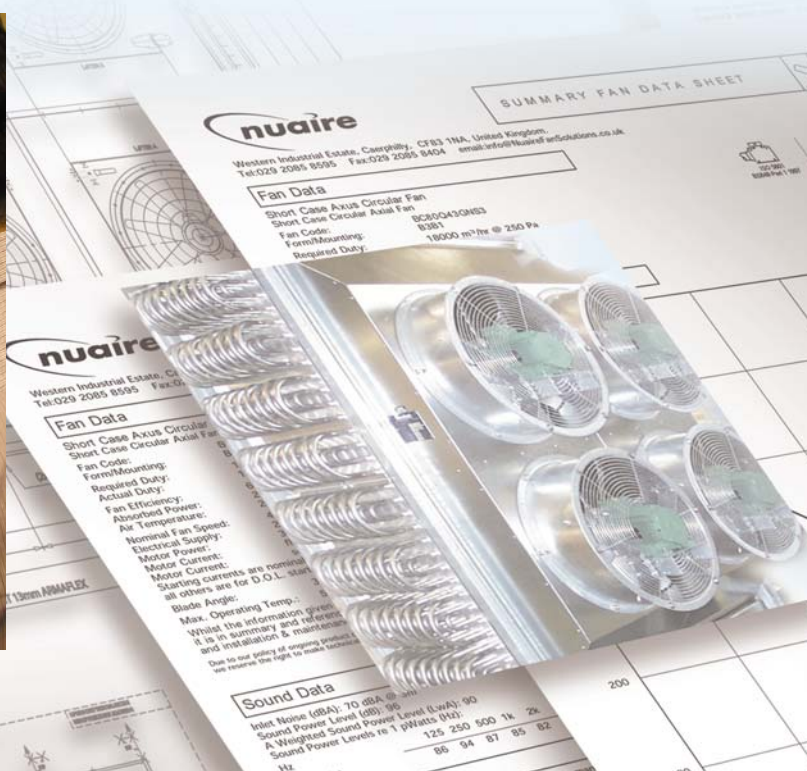
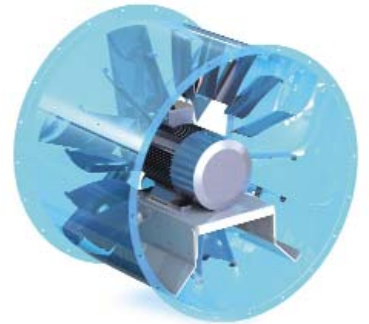
FAN SELECTOR/PRODUCT GUIDE

A practical and extremely helpful tool to assist with the selection of products to meet your specification.

The software provides detailed datasheets comprising efficiency, performance, sound, wiring and specification. The software allows all of the data to be imported in Microsoft or DXF format for AutoCAD.

To download Fan Selector simply visit www.nuairegroup.com/fanselector and follow the instructions.

An email reminder will be sent to you each time Fan Selector has been updated, enabling you to download the latest copy.
Alternatively, you can request a copy of Fan Selector on CD-ROM from the above website.



TYPICAL APPLICATION

All buildings have their own unique requirements for ventilation. With the new government guidelines on energy efficiency it is more difficult to maintain a comfortable, healthy environment whilst providing an energy efficient solution.

CONSTANT PRESSURE FOR MULTI-ROOM VENTILATION

A central extract system provides a continuous trickle of air to ensure the room is kept fresh. When the room becomes occupied the system will increase the ventilation to the desired design duty.

MECHANICAL EXTRACT FOR OFFICES & COMMUNAL AREAS

Extract fans are the most simplest form of ventilation for office and communal environment. Whether duct, wall, window or ceiling mounted these fans will extract moisture from wet rooms and offices to provide continuous fresh air.

STAIRWELL PRESSURISATION & SMOKE EXTRACT FOR MULTI-FLOOR REQUIREMENTS

Nuaire have manufactured smoke and car park ventilation for over 30 years and a design service is available to complement the complete range of smoke pressurisation and extract fans (duct or roof mounted) for 300/400°C for 1 & 2 hours, certified to EN12101-3 2002.

CAR PARK EXTRACT

The comprehensive range of AXUS smoke fans together with the Impulse car park extract fan meets the ever increasing need to provide smoke extract for car parks.

Systems designed for life



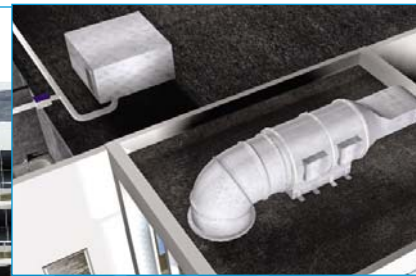
AIRE-VOLVE TWIN FANS, NUAIRE'S LATEST INNOVATION

- Patented in-line fan assembly providing optimum performance, lowest noise, and lowest overall product envelope size.
- Low profile new Twin Fan up to 1.9m³/s. Low SFP and noise.

MRXBOX95 WALL & LOFT COOL AIR & HEAT RECOVERY

- Optimum performance – low specific fan power and high efficiency results in SAP Q
- Meets Building Regulations
- Improves indoor air quality and prevents condensation
- Extremely low noise levels ensuring occupant satisfaction
- Independent controls for quick and easy commissioning
- Easy and flexible installation options

Installation features:
External Constant Pressure
Quiet Scroll Twin Fan



CAR PARK EXTRACT OPTIONS



IMPULSE High temperature car park extract system

- Powerful yet quiet with inbuilt silencers
- Unobtrusive low depth design (320 or 400mm)
- No ductwork reduces costs by up to 30%
- Reduce running costs by 40% with this energy efficient system
- For added security unit fixing brackets are '2 stage'
- Flexible system is fully reversible
- For added safety Impulse is certified to EN12101-3 (300°C for 2 hours)



AXUS SMOKE High temperature axial extract fans (up to 85m³/s)

- Flexible solution can be used for a wide range of smoke applications
- Choice of matched ancillaries
- For added safety AXUS smoke fans are certified EN12101-3 (400°C for 2 hours & 300°C for 2 hours)
- Flexible options for either smoke or non smoke reservoir applications



AXUS Duct mounted axial extract fans (up to 95m³/s)

- Flexible solution can be used for a wide range of applications
- For ease of application a 'stock range' is available contact Nuaire
- Choice of matched ancillaries



SQUIF RANGE Run and standby units ideal for 'motor out of airstream' applications

- Ideal for high resistance applications
- Single and twin fan options
- Twin fan option for 24/7 ventilation
- Suitable for high temperature applications
- Options for internal and external mounting
- Ambient and high temperature models
- Wide range of ancillaries available



XBOXER TAILOR MADE AHUS

23 sizes covering airflow range up to 20m³/s.



STAIRWELL PRESSURISATION FOR ESCAPE ROUTE PROTECTION

AXT High temperature 'run & standby' axial fan (up to 73m³/s)

- Ideal system for stairwell pressurisation
- Added strength & stability as units are welded and manufactured from heavy gauge galvanised steel
- Optional access doors make observation, & maintenance very quick & easy
- Systems designed for life
- Certified to EN12101-3



MECHANICAL EXTRACT FOR OFFICES AND COMMUNAL AREAS

ES-OPUSDC

Energy efficient range of inline, surface & recessed fans (Up to 115l/s)

- Exceptionally quiet fans (typical dBA of 29)
- Energy efficient Ecosmart 'plug & go' control option
- Quick & easy to install and commission
- Wide range of complementary ancillaries, sensors and controls
- Twin fan options available
- Hard wearing, robust and flame retardant casing

ECOSMART SQRUBO

Energy efficient make up air supply & extract units (up to 0.5m³/s)

- Exceptionally quiet fans ideal for above ceiling applications
- Ecosmart 'plug & go' controls are quick to install and commission
- Quick & easy to commission with easily adjustable fan and heater duty
- Wide range of complementary sensors and controls suitable for most applications
- Reduce installation time with 'one box' containing filter, fan, heater & controls

XTRACTOR

High efficiency centrifugal fan (up to 6.2m³/s)

- Quiet fan ideal for 'noise sensitive' areas
- Powerful extract fan for multi-room system
- For quick & easy installation and commissioning include the Ecosmart energy efficient 'plug & go' controls
- Requires very low maintenance
- Flexible solution, with a wide range of 27 fans to suit most applications

TERMINATOR

Horizontal discharge roof extract fan

- Flexible solution with choice of axial, centrifugal or mixed flow impellers
- On-site flexibility allows unit to be mounted vertically or horizontally
- Low profile weather cowl provides unobtrusive roof top option
- Reduce energy costs by selecting Ecosmart efficient controls

XBOXER THERMAL WHEEL

Range of energy efficient units for internal or external applications (up to 10m³/s)

- High efficiency wheel (up to 85%)
- Optional energy efficient Ecosmart control option
- Quiet solution with double skin construction
- LPHW or no heater battery available
- No control option
- Wide range of ancillaries such as advanced condensate pump, weather roof and motorised dampers



Installation features:
Impulse and Axis
high temperature fan

SPECIALIST & OEM FAN SOLUTIONS



ATEX / OFFSHORE

Nuaire has designed a complete range of axial flow fans suitable for use in potentially explosive atmospheres, these units are manufactured and supplied in accordance with ATEX Directive 94/9/EC.

■ ATEX COMPLIANT RANGE

■ EEXDE, EEXD, EEXE, EEXN (GASES)

■ ZONE.21, ZONE.22 (DUST)

■ 304/316L STAINLESS STEEL CASE AND IMPELLER OPTIONS



COOLING & REFRIGERATION

Nuaire has extensive experience in providing the right fan solution for applications such as air cooled condensers, chillers, & blast freezers.

■ -50/+60°C (STOP/START) MINIMUM OPERATING TEMPERATURE STANDARD

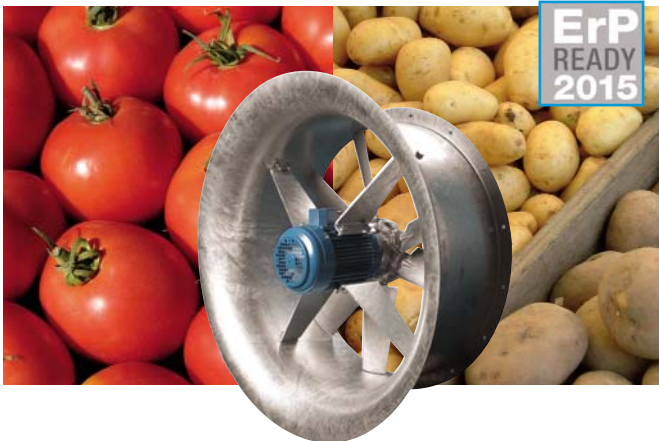
■ HOT DIP GALVANISED STEEL CASE CONSTRUCTION

■ PTO THERMOSTAT THERMAL OVERLOAD FITTED AS STANDARD

■ IP56

■ IE2 EFFICIENCY - TYPICAL DELIVERY PERIOD 3 WEEKS EX-STOCK

AVAILABLE IN 3 WEEKS
EX-STOCK



AGRICULTURE

Dryers for Grain, Barley, Wheat, Oil Seeds, Cereals and Coffee. Coolers for potatoes and Ventilation in Horticulture are just some of the Agricultural applications where Nuaire has the right fan solution.

■ SPECIAL BELLMOUTH CASE DESIGN

■ EASY MAINTENANCE

■ ROBUST CORROSION RESISTANT CONSTRUCTION

■ IE2 EFFICIENCY AS STANDARD



FOOD PROCESSING

A large range of impeller designs and motors are available, providing a cost effective, efficient, low noise fan assembly for your equipment. Fan cases are not only available in hot dip galvanised steel as standard, but 304 & 316 stainless steel.

■ -50/+60°C (STOP/START) MINIMUM OPERATING TEMPERATURE STANDARD

■ CASE MATERIAL OPTIONS IN 304 & 316L STAINLESS STEEL

■ NATURAL ALUMINIUM FINISH MOTOR (NO PAINT)

■ IMPELLER MATERIAL OPTIONS IN ALUMINIUM, PAG & PPG

■ IE2 EFFICIENCY - TYPICAL DELIVERY PERIOD 3 WEEKS EX-STOCK

■ IP56

AVAILABLE IN 3 WEEKS
EX-STOCK

SPECIALIST & OEM FAN SOLUTIONS



POWER GENERATION

Nuaire can provide the right fan solution for all electro-mechanical cooling requirements with fan diameters ranging from 250-2000mm, all designed and tested specifically for power generation, load bank and heat exchange applications.

■ EXTENSIVE RANGE OF SOLUTIONS

■ AMBIENT TEMPERATURES UP TO 90°C

■ ROBUST CONSTRUCTION (HDG, 304, 316L)

■ DUAL VOLTAGE, DUAL FREQUENCY FOR WORLDWIDE ELECTRICAL SUPPLY



CUSTOM DESIGN

We pride ourselves on working closely with the client at every stage in their development process. The latest manufacturing technology and accredited test facilities enables us to offer a flexible approach to the design and build of the right fan solution. Our focus is not only on the fan solution, but on its interface with the customer's equipment and manufacturing process, resulting in a reduction in assembly costs in most cases.

■ SPECIFIC CASE DESIGN

■ BESPOKE SHEET METAL FABRICATION

■ PRE-WIRING FOR INTERFACE WITH THE ORIGINAL EQUIPMENT

■ A RANGE OF MATERIAL OPTIONS

■ CLIENT SPECIFIC TESTING

■ BESPOKE FAN SELECTION SOFTWARE

SPECIALIST OFFSHORE RANGE – ATEX COMPLIANT



Offshore motors are suitable for -30 to $+60^{\circ}\text{C}$ with PTC thermistors for constant and variable speed control by inverter and IP56 complete with offshore heavy seas paint finish.

- EXD, EXDE, EXN, EXE (Gases) zone 21, zone 22 (Dust)
- Stainless steel case construction (304 & 316) with Naval Brass impeller track for offshore applications available in long and short cased design with bellmouth inlet
- Sizes available 400mm up to 1800mm impeller diameter
- Bespoke ATE X offshore fan selection software
- Aerofoil impeller with adjustable pitch angle
- Die cast aluminium hub and blades with option for offshore paint
- Spun flanges for high rigidity to DIN 24154 series 3
- Inspection door to verify correct direction of rotation
- Adjustable pitch impellers enables wide performance and optimum flexibility to meet the application requirements
- Fans are certified in accordance with ATEX Directive 94/9/EC
- Short delivery time

MAXIMISE AIR THROW



Nuaire's innovative patented new fan design combines a unique aerodynamic mounting system with the latest design in impeller technology.

This combination results in enhanced Air flow patterns providing a more efficient and effective air distribution through all storage facilities. This coupled to the greater operating range of the Nuaire fans provides a solution for all storage applications.

- **COST EFFECTIVE SOLUTION** -
Reduced number of units
- **ENERGY EFFICIENT SOLUTION** -
fewer units means less energy used
- **LOWER RUNNING COSTS** -
new technology increase the efficiency of the system
- **QUICK INSTALLATION** -
due to reduced quantity of fans required
- **SPACE SAVING** -
less impact on the fabric of the cold room or storage area

ELIMINATE THE NEED FOR AIRFLOW STRAIGHTENER

nuaire SUMMARY FAN DATA SHEET

Nuaire Limited, Western Industrial Estate, Coonahilly, CI 89 1NA, Ulster, Kingdom.
Tel: 028 2066 8050 Fax: 028 2066 8464 Email: enquiries@nuaire.co.uk
Web: www.nuaire.co.uk or www.nuaire.com or www.nuairegroup.com
This data sheet is intended as a guide only. It is not intended to be used as a specification. It is the purchaser's responsibility to verify the product's performance against their own requirements.

Technical Data

Medium Case Axial Circulator Fan
Medium Case Circular Axial Fan
Fan Code: **MC300043GK2-3**
Fan Mounting: **2001**
Installation Manual Link: [8/11/151](#)
Theoretical Duty: 6.2 m³/s @ 100 Pa
Actual Duty: 6.189 m³/s @ 100 Pa
Motor Efficiency: 85 %
Fan Efficiency: 65 %
Approved IP Rating: **IP54**
Maximum Allowable Pressure: 750 Pa
Motor Input Power: 2.22 kW
Speed of Fan Frame: 3.6 m/s VFD
Air Temperature: 20 °C
Nominal fan speed: 4 pole, 1,400 RPM
Fan Motor Rating: 2.2 kW VFD 3 Phase, 400 V
Motor Rating: 3 kW
Motor Current: 16.4 A
On/Off Control: 50/50 A
On/Off Control: 7.0 A
Motor Frame Size: 100
Motor Efficiency: 85% (Standard Efficiency)
Starting currents are nominal, 4 kW and above are for star Delta, all other are for DOL starting.
Fan Angle: 30°
Motor Operating Temp: 40°C

Sound Data

Sound Power Levels (L _{WA}) (dB)	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Overall	81	80	79	78	77	76	75	74	73	72
Octave Band	63	67	70	73	76	79	81	83	85	87
Center Octave	25	30	34	38	42	46	50	53	56	59
Total	82	84	86	88	90	91	91	91	91	91

Notes: Calculated at actual duty of fan.
Sound Pressure (dB) at 1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m.
Sound Power (W) at 1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m.
A: Weighted air quality, noise 50, octave 100, Total 100
B: Weighted air quality, noise 50, octave 100, Total 100
C: Weighted air quality, noise 50, octave 100, Total 100
D: Weighted air quality, noise 50, octave 100, Total 100

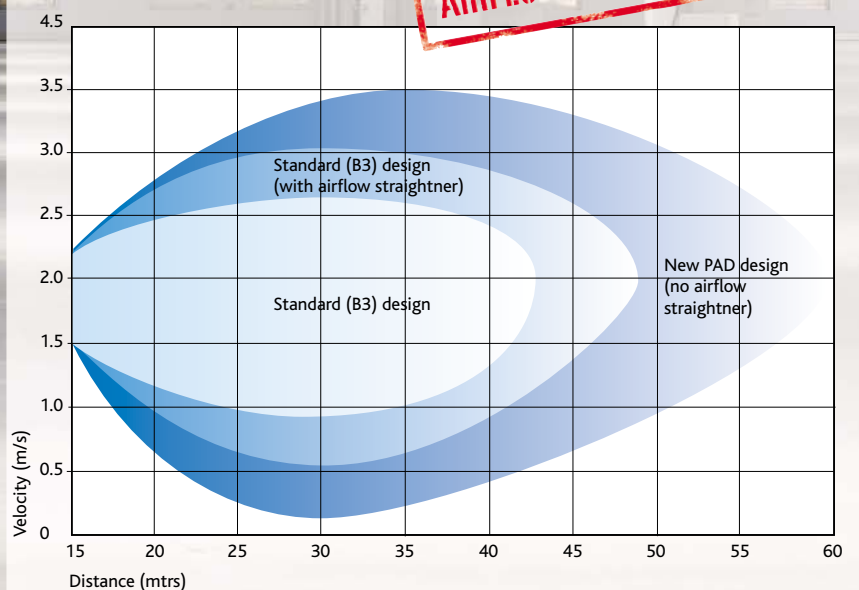
Specification

Axis axial flow fan 300mm diameter with a medium case, manufactured from hot dipped galvanneal steel and an impeller consisting of an aluminium die cast hub with PA12 (50°C to 110°C) blades fabricated in accordance with ISO 1046. The motor incorporated is PFD mounted, aluminium construction soft finished, IP54, class F, totally enclosed non ventilated (TEFC) 50 Hz, 230V, 3 phase, complete with PFD thermostat and skidded drain holes.

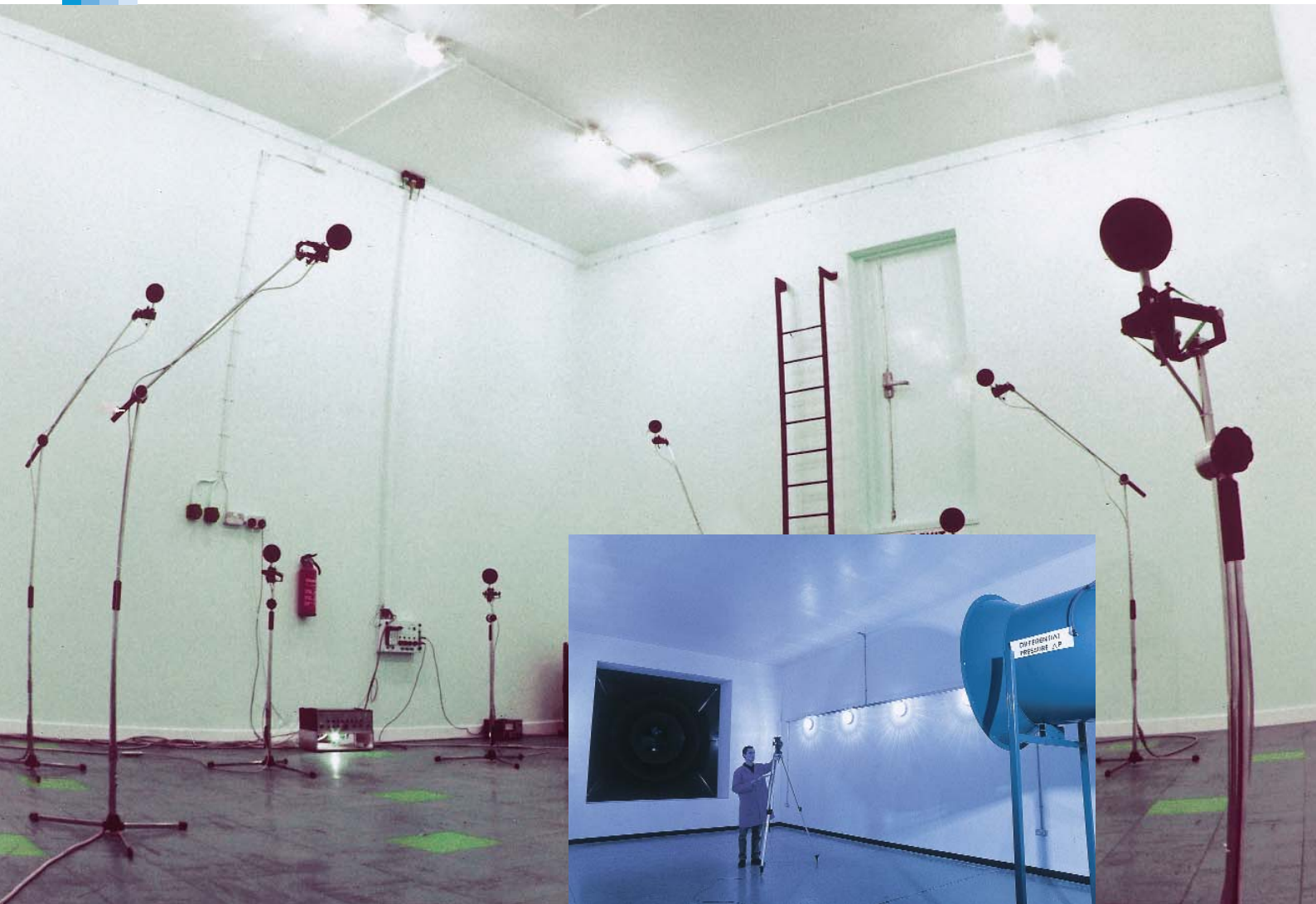
Fan Dimensions

Performance Curve

Throw Velocity



WORLD CLASS TESTING FACILITIES



The company's rigorous product testing regime is unrivalled in the industry, which is hardly surprising given multi-million pound test facilities considered to be amongst the most modern and comprehensive in the world.



It's all designed to ensure that our customers benefit from the best ventilation solutions on the market today. The facilities have been designed to meet the latest industry standards and carry the appropriate approvals including those from the **British Standards Institute (BS)** and the **Air Movement and Controls Association (AMCA)**.

The two reverberant chambers at the facility (Type D and Type A configurations) test for both aerodynamic and acoustic performance, allowing Nuairé to self-certify products, including those for the French market, as well as ensuring that products meet the high standards consistent with Nuairé's reputation.

Amongst the parameters that are subject to detailed testing are air volume and pressure as well as noise, power consumption, vibration and electromagnetic compatibility.

All products are subjected to rigorous testing both during development and production. Initial testing is supported with regular audit testing with products.

Nuairé has a long standing relationship with BSRIA who choose Nuairé's facilities for their own independent testing.





ENERGY EFFICIENT VENTILATION

ES-LCDM.
Simple touchscreen navigation and control.

The new Ecosmart intelligent control panel from Nuaire. Connecting up to 32 devices with one control.



ES-PIR2 (PASSIVE INFRA-RED)

ES-HUMIDISTAT2

ES-TEMP2 (TEMPERATURE SENSOR)

ES-CO₂RM SENSOR
(COMBINED CO₂ &
TEMPERATURE SENSOR)

With its new intelligent control panel, Ecosmart from Nuaire represents the most flexible energy-saving ventilation control system on the market today.

There's no wasted energy because air volume can be precisely set through the integrated speed control. As part of a constant pressure system, you get ventilation on demand, only when a room is occupied, to achieve the maximum possible savings. There's also a trickle function as standard enabling you to set a background ventilation rate to keep rooms fresh when unoccupied too while still conserving energy. While integrated BMS features enable any central system to control and monitor the fan or air-handling unit. But that's not all.

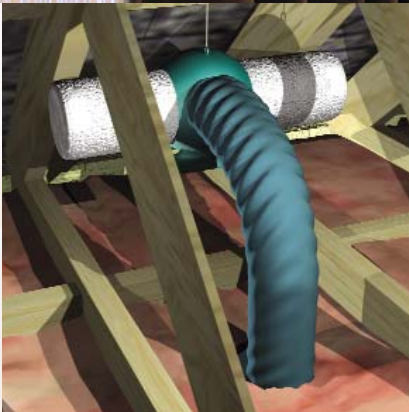
Because Ecosmart doesn't just save energy. With its new state-of-the-art, easy to use touch screen control panel, it saves your client's energy too. In fact, saving so much energy has never taken so little effort. Ecosmart from Nuaire. It doesn't cost you the earth.

Nuaire. For the complete ventilation solution.



Call **+44 (0)29 2085 8278** to arrange a demo of the **NEW** Ecosmart ICP System.

RESIDENTIAL SOLUTIONS



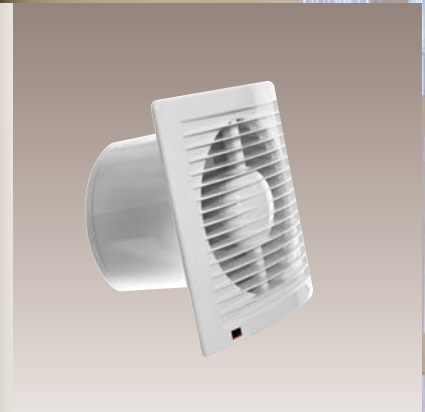
POSITIVE INPUT VENTILATION (PIV)

Nuaire invented Positive Input Ventilation over 40 years ago and it remains the UK's most popular method of low-energy whole home ventilation. As the originators of this technology, Nuaire continues to lead the way with a successful range of low-energy systems that cure condensation dampness, improve indoor air quality and can control Radon gas levels and indoor allergens. Our Drimaster system is designed for properties with lofts and Flatmaster system is for apartments. PIV is the most cost-effective and simple installation of any ventilation product, saving you time and money. The Drimaster range offers extremely low power consumption and has options for intelligent heat recovery and summer cooling.



MECHANICAL VENTILATION WITH COOLING OR HEAT RECOVERY

Using the latest generation of low-energy fans and motors, our MVHR systems will quietly and efficiently provide the building with warmth when required, and fresh, filtered air all year round. Our successful MRXBOX95 range offer the lowest Specific Fan Power and highest efficiency, making them the greenest choice for housebuilders and developers. We offer the largest range of cool air/heat recovery systems available from compact and lightweight systems that ventilate small, medium or large houses to low-profile MVHR's suitable for apartment ventilation where space is at a premium.



RESIDENTIAL EXTRACT FANS

Nuaire offer a wide range of residential fans for wall, window and ceiling applications.

Specifically designed to ventilate small rooms such as toilets, bathrooms, shower rooms, utility rooms and kitchens.

All our fans are exceptionally quiet, with high performance for guaranteed ventilation.

The fans can extract directly to outside or through a length of ducting.

Quick and easy to install Nuaire's fans come with options including pull cord, timer, humidistat and PIR detectors.



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AXIAL FAN PRODUCTS

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DEDICATED SPECIALIST SUPPORT TEAM



EXPLOSION PROOF UNITS (ATEX)

Nuaire has designed a complete range of axial flow fans suitable for use in potentially explosive atmospheres, these units are manufactured and supplied in accordance with ATEX Directive 94/9/EC.

COOLING & REFRIGERATION

Nuaire has extensive experience in providing the right fan solution for applications such as air cooled condensers, chillers, & blast freezers.

FOOD PROCESSING

A large range of impeller designs and motors are available, providing a cost effective, efficient, low noise fan assembly for your equipment. Fan cases are not only available in hot dip galvanised steel as standard, but 304 & 316 stainless steel.

AGRICULTURE

Dryers for Grain, Barely, Wheat, Oil Seeds, Cereals and Coffee. Coolers for potatoes and Ventilation in Horticulture are just some of the Agricultural applications where Nuaire has the right fan solution.

FAN SELECTION SOFTWARE

To support our extensive range we have designed a selection program with the needs of an OEM customer in mind with the aim of providing ease of selection, flexibility and comprehensive technical fan data.

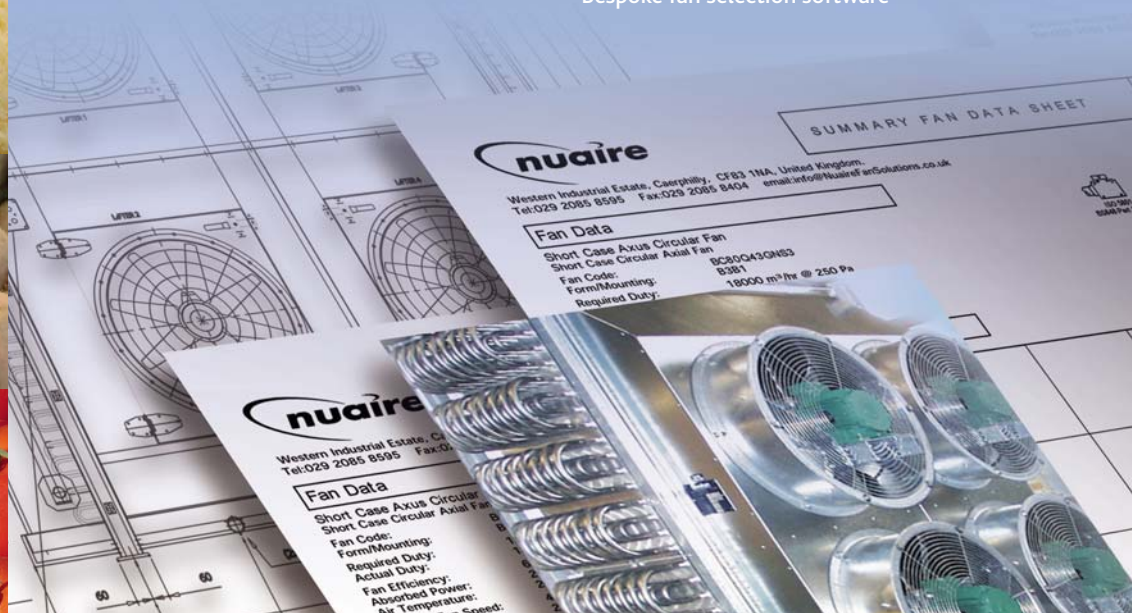
For your selection program CD please contact Nuaire direct on Tel 02920 858595 or www.nuairegroup.com

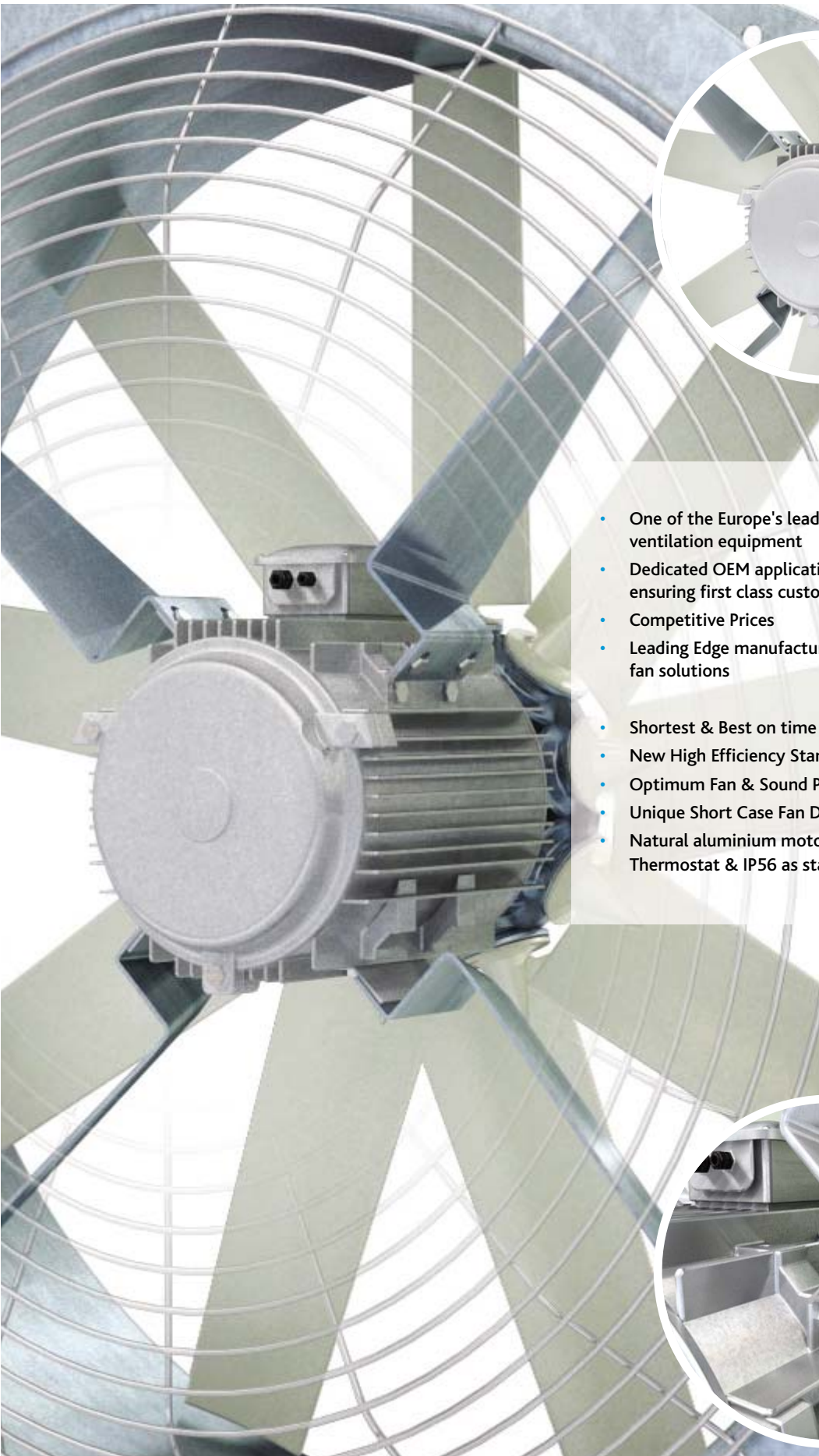
CUSTOM DESIGN

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Our focus is not only on the fan solution, but on its interface with the customer's equipment and manufacturing process, resulting in a reduction in assembly costs in most cases.

- Specific case designs
- Bespoke sheet metal fabrication
- Pre-wiring for interface with the original equipment
- A range of material options
- Client Specific testing
- Bespoke fan selection software





- One of the Europe's leading manufacturers of ventilation equipment
- Dedicated OEM applications technical support team ensuring first class customer service
- Competitive Prices
- Leading Edge manufacturing ensuring cost effective fan solutions
- Shortest & Best on time deliveries in the industry
- New High Efficiency Standard Short Case fan Design
- Optimum Fan & Sound Performance
- Unique Short Case Fan Design
- Natural aluminium motor finish (-50/55 Deg.C) PTO Thermostat & IP56 as standard



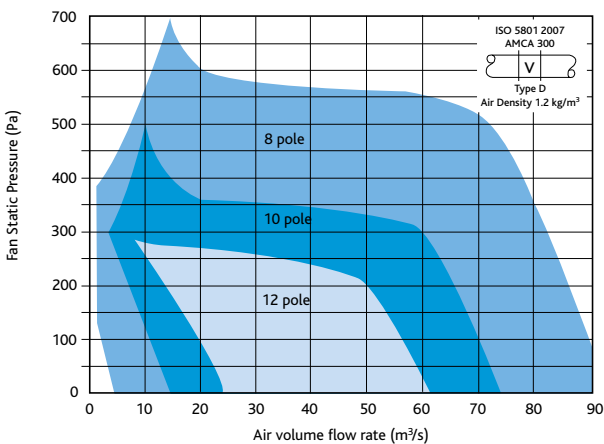
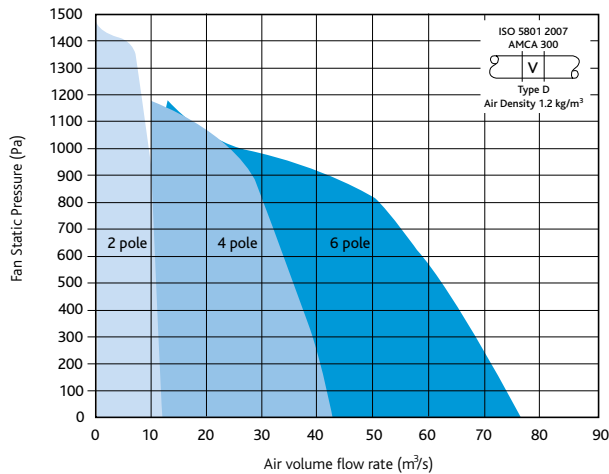
AXIAL AMBIENT FANS

AXUS LONG CASED AXIAL FANS



PERFORMANCE

An indication of the overall duty range is shown below, a selection of which is covered in this brochure. Please contact Nuair for any duty outside the range indicated or refer to website for further details.



BENEFITS

WIDE RANGE

The widest range of 'standard' axials available. A fan to match every application ensures maximum efficiency saving costly energy.

ENERGY EFFICIENT

The fan impeller and IE2 (formerly EFF1) motors provide the most efficient solution.

LONG LIFE HEAVY GAUGE GALVANISED STEEL CONSTRUCTION

Ensures strength, durability and protection from damage during installation and will be corrosion resistant.

TESTED TO THE HIGHEST STANDARDS

Air performance to BS848 (part 1) 2007 and ISO5801 (part1) 2007 with acoustic performance to AMCA300. All carried out at Nuair's test facilities to ensure the most accurate performance figures and noise data is provided, constantly monitored to give you up to date information you can rely on.

CONTROLS

Wide range available including energy efficient Ecosmart.

COMPREHENSIVE ANCILLARIES

Including attenuators, speed controls and mounting ancillaries all pre-selected for the individual fan to ensure a perfect match and eliminate any on-site fitting problems.

FAN OPTIONS

As well as long cased axials, contra-rotating, Run/standby listed, options within the Axus range (2 speed-operation half and full, full/two thirds). Flameproof motors to EExd IIBT4.

1 YEAR WARRANTY

AXIAL AMBIENT FANS

AXUS RUN & STANDBY AXIAL FANS

AXUS CONTRA ROTATING AXIAL FANS



BENEFITS

GUARANTEED EMERGENCY VENTILATION

Run and standby fan ensures emergency ventilation in the case of fan failure.

HIGH PERFORMANCE

Developed to provide optimum performance for each case size. 13 Case diameters 315 - 1250mm. Airflow - up to 42m³/s. Static pressure - up to 2500 Pa.

HIGHEST STANDARD TESTING

Air performance to BS848 (part 1) 2007 and ISO5801 (Part 1) 2007.

ACOUSTIC PERFORMANCE

AMCA300.

FLEXIBLE SOLUTION

Units can be installed at any angle.

MATCHING ANCILLARIES

A wide range of ancillaries is available.

AVAILABLE OPTIONS

AXUS units suitable for two speed operation (full and half speed). Also available as (single speed, speed controllable, full/half, full/two thirds). AXUS units available with access doors suitable for cleaning and observation.

1 YEAR WARRANTY

BENEFITS

HIGH PERFORMANCE

Developed to provide optimum performance for each case size. 13 Case diameters 315 - 1250mm. Airflow - up to 42m³/s. Static pressure - up to 2500 Pa.

HIGHEST STANDARD TESTING

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ACOUSTIC PERFORMANCE

AMCA300.

FLEXIBLE SOLUTION

Units can be installed at any angle.

MATCHING ANCILLARIES

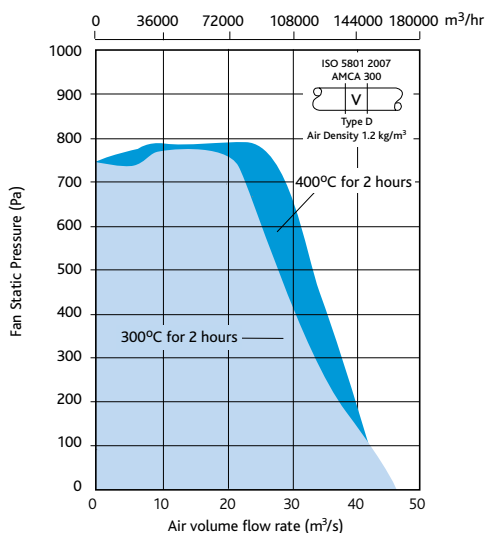
AV mounts, flexible connectors, mounting brackets, matching flanges, inlet cones, guard, backdraught damper.

AVAILABLE OPTIONS

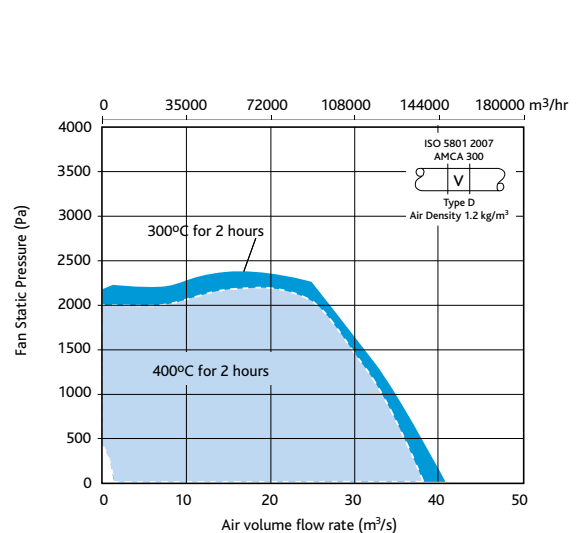
AXUS units suitable for two speed operation (full and half speed). Also available as (single speed, speed controllable, full/half, full/two thirds). AXUS units available with access doors suitable for cleaning and observation.

1 YEAR WARRANTY

PERFORMANCE



PERFORMANCE



AXIAL AMBIENT FANS

BIFURCATED AXIAL FANS



EZPLATE AXIAL FANS



BENEFITS

HIGH TEMPERATURE PERFORMANCE

The standard bifurcated unit is suitable for temperatures up to 90°C. High temperature options available up to 230°C.

WIDE RANGE

The widest range of 'standard' bifurcated axials available. A fan to match every application ensures maximum efficiency saving cost over its life.

LOW MAINTENANCE

Motor out of airstream ensures the unit is not affected by contaminants yet is easily accessible.

HEAVY GAUGE GALVANISED STEEL CONSTRUCTION

For strength, durability and protection from damage during installation. Corrosion resistant.

HIGHEST STANDARDS OF TESTING

Air performance to BS848 (part 1) 2007 and ISO5801 (part 1) 2007 with acoustic performance to AMCA300. Carried out at our own test facilities to ensure the most accurate performance figures and noise data is provided and constantly monitored.

COMPREHENSIVE ANCILLARIES

Attenuators, frequency inverters, Ecosmart controls and mounting ancillaries pre-selected for each fan to ensure a perfect match and eliminate any on-site fitting problems.

1 YEAR WARRANTY

Stainless steel and explosion proof versions available.

BENEFITS

TROUBLE FREE OPERATION

Tested, reliable rotor motors ensure long life and trouble free operation.

ECONOMICAL OPTION

A range of controllers are available. All motors are speed controllable to ensure the most economical use.

ENERGY EFFICIENT

Advanced sickle bladed or aerofoil, dynamically balanced technology provides efficient and quiet operation.

ADDED SAFETY

All motors are fitted with a heatseeker thermal overload device which gives added safety.

MAXIMUM FLEXIBILITY

Fans can be fitted in any altitude to give maximum flexibility on site.

EASY TO INSTALL

Units have an integral terminal box and motor side guard (on sizes up to 710mm) for easy installation and safe operation.

ADDED PROTECTION

All motors have a corrosion resistant coating and are IP44 rated (sizes 315-450), Class IP54 for all others.

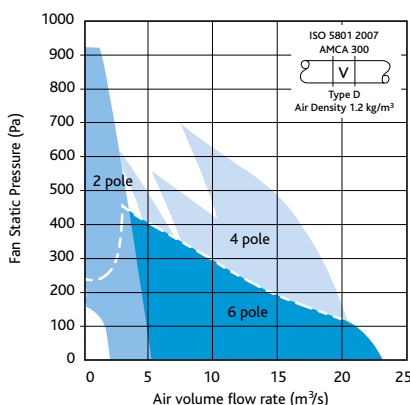
COMPREHENSIVE ANCILLARIES

Backdraft shutter and wall grilles.

1 YEAR WARRANTY

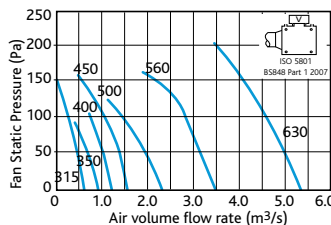
PERFORMANCE

An indication of the overall duty range is shown below. Please contact Nuair for any duty outside the range indicated.

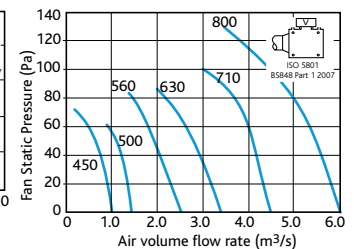


PERFORMANCE

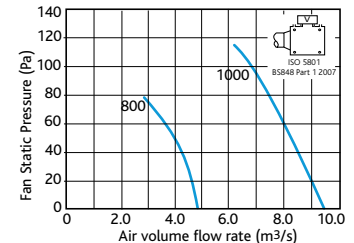
EZPLATE 4 Pole Fans



EZPLATE 6 Pole Fans

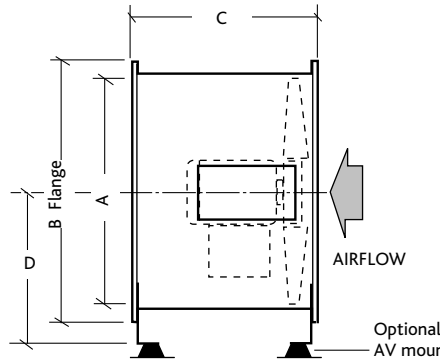


EZPLATE 8 Pole Fans

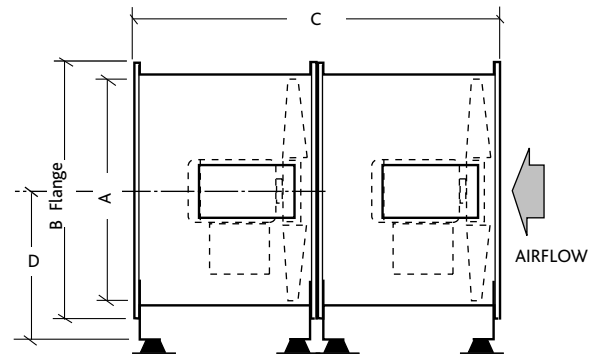


AXIAL AMBIENT FANS DIMENSIONS

AXUS LONG CASED AXIAL FANS



AXUS RUN & STANDBY AXIAL FANS



DIMENSIONS (mm)

Code	A	B	C	D
AX25	250	335	350	170
AX31	315	400	365	210
AX35	350	430	380	240
AX40	400	490	440	270
AX45	450	540	450	300
AX50	500	608	465	340
AX50	500	608	615	340
AX56	560	670	440	370
AX56	560	670	615	370
AX63	630	740	480	430
AX63	630	740	800	430
AX63	630	740	800	430
AX71	710	814	455	470
AX71	710	814	700	470
AX80	800	910	440	540
AX80	800	910	840	540
AX90	900	1016	740	600
AX100	1000	1128	740	670
AX100	1000	1128	840	670
AX100	1000	1128	1010	670
AX112	1120	1240	730	750
AX112	1120	1240	865	750
AX112	1120	1240	1010	750
AX125	1250	1365	865	830
AX125	1250	1365	1010	830

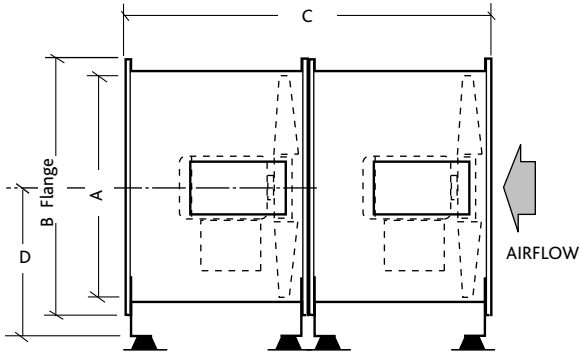
DIMENSIONS (mm)

Code	A	B	C	D
AXT31	315	400	730	210
AXT35	350	430	760	240
AXT40	400	490	880	270
AXT45	450	540	900	300
AXT50	500	608	930	340
AXT50	500	608	1230	340
AXT56	560	670	880	370
AXT56	560	670	1230	370
AXT63	630	740	960	430
AXT63	630	740	1200	430
AXT71	710	814	910	470
AXT71	710	814	1400	470
AXT80	800	910	880	540
AXT80	800	910	1680	540
AXT90	900	1016	1480	600
AXT100	1000	1128	1480	670
AXT100	1000	1128	1700	670
AXT112	1120	1240	1460	750
AXT112	1120	1240	1730	750
AXT112	1120	1240	2020	750
AXT125	1250	1365	1730	830
AXT125	1250	1365	2020	830

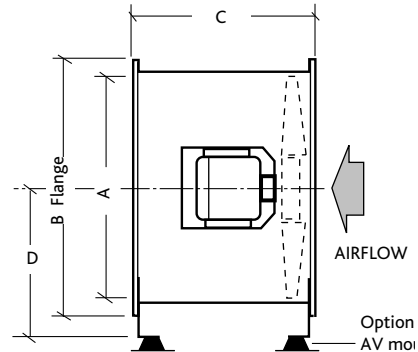
1800 & 2000 are available with standard motors (ambient 55°C).
Unit sizes 1400 - 1600mm call Nuaire for details.

AXIAL AMBIENT FANS DIMENSIONS

AXUS CONTRA ROTATING AXIAL FANS



BIFURCATED AXIAL FANS



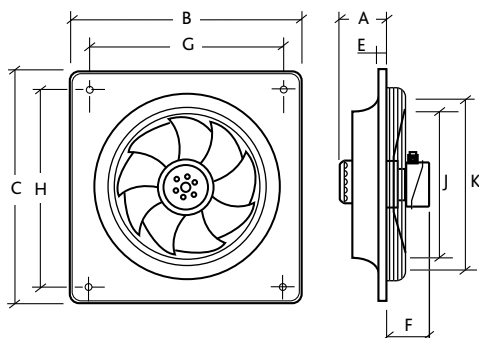
DIMENSIONS (mm)

Code	A	B	C	D
AXC31	315	400	730	210
AXC35	350	430	760	240
AXC40	400	490	880	270
AXC45	450	540	900	300
AXC50	500	608	930	340
AXC50	500	608	1230	340
AXC56	560	670	880	370
AXC56	560	670	1230	370
AXC63	630	740	960	430
AXC63	630	740	1200	430
AXC71	710	814	910	470
AXC71	710	814	1400	470
AXC80	800	910	880	540
AXC80	800	910	1680	540
AXC90	900	1016	1480	600
AXC100	1000	1128	1480	670
AXC100	1000	1128	1700	670
AXC112	1120	1240	1460	750
AXC112	1120	1240	1730	750
AXC112	1120	1240	2020	750
AXC125	1250	1365	1730	830
AXC125	1250	1365	2020	830

DIMENSIONS (mm)

Code	A	B	C	D
AXB31	315	400	500	210
AXB35	350	430	500	240
AXB40	400	490	530	270
AXB45	450	540	530	300
AXB50	500	608	605	340
AXB56	560	670	605	370
AXB63	630	740	630	430
AXB71	710	795	700	470
AXB80	800	885	950	540
AXB90	900	1000	950	600
AXB100	1000	1100	950	670

For unit weights and pressure drops above 2500 pascals, please call our technical team on 029 2085 8200.



EZPLATE AXIAL FANS

DIMENSIONS (mm)

Fan Unit	A	B	C	E	F	G	H	J	K
EZPLATE315	73	430	430	11	60	380	380	324	330
EZPLATE350	80	485	485	12	60	435	435	368	375
EZPLATE400	98	540	540	12	60	490	490	412	420
EZPLATE450	100	575	575	14	60	535	535	463	480
EZPLATE500	120	655	655	16	61	615	615	517	535
EZPLATE560	136	725	725	16	46	675	675	568	590
EZPLATE630	130	805	805	16	44	750	750	643	670
EZPLATE710	170	850	850	20	20	810	810	721	765
EZPLATE800	210	970	970	20	17	910	910	807	870
EZPLATE1000	210	1170	1170	20	10	1110	1110	1010	1070

Please note: Inlet guards are not included for the 800mm and 1000mm fan units.

SMOKE FAN PRODUCTS

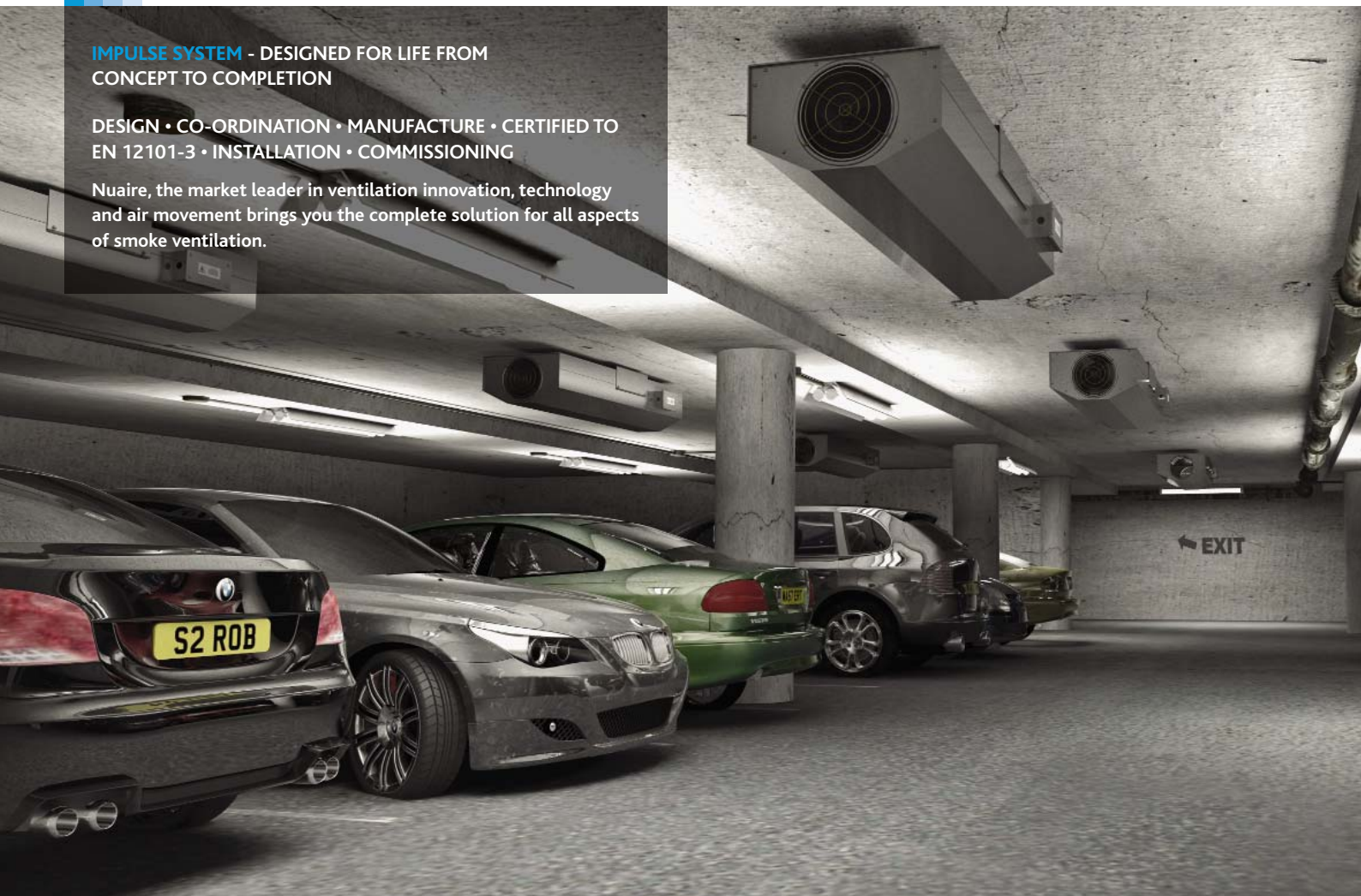
SECTION 2	PAGE
• THE COMPLETE SOLUTION FOR CAR PARK VENTILATION	28 - 29
• SVT2 IMPULSE FANS	30
• SVTC IMPULSE FANS	31
• HT AXUS HIGH TEMPERATURE FANS	32
• AXUS RUN & STANDBY FANS	33
• AXUS CONTRA ROTATING FANS	33
• AXR- ROOF MOUNTED FAN/COWL COMBINATION	34
• HT SQUIF HIGH TEMPERATURE FANS	35
• HT TWIN SQUIF HIGH TEMPERATURE FANS	36
AXUS FAN DIMENSIONS	37 - 38

THE COMPLETE SOLUTION FOR CAR PARK VENTILATION

IMPULSE SYSTEM - DESIGNED FOR LIFE FROM CONCEPT TO COMPLETION

DESIGN • CO-ORDINATION • MANUFACTURE • CERTIFIED TO EN 12101-3 • INSTALLATION • COMMISSIONING

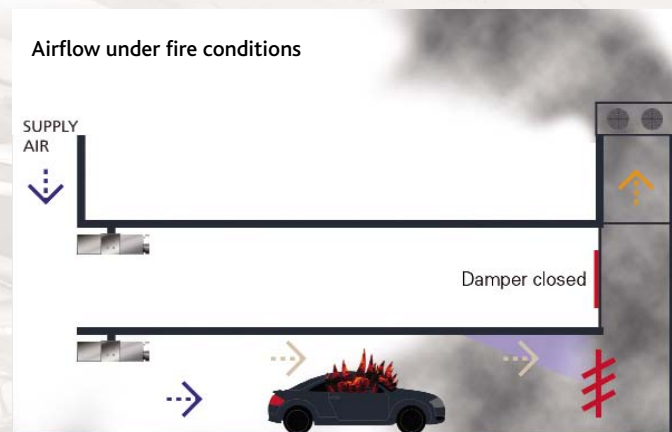
Nuaire, the market leader in ventilation innovation, technology and air movement brings you the complete solution for all aspects of smoke ventilation.

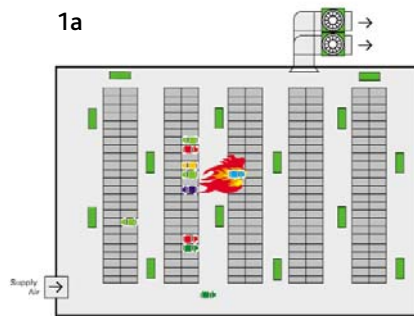


HOW THE SYSTEM WORKS

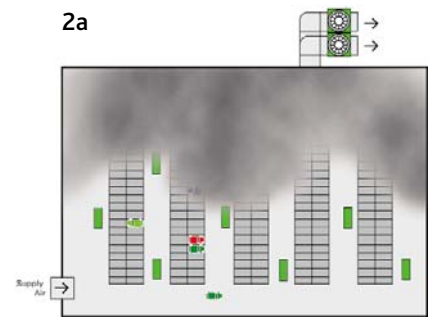
The car park impulse system is used to control and remove contaminants on a day to day basis, whilst ensuring that smoke is removed quickly and efficiently in the event of a fire. The system utilises a number of strategically positioned impulse fans, mounted on the ceiling, that push the fumes and smoke 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.

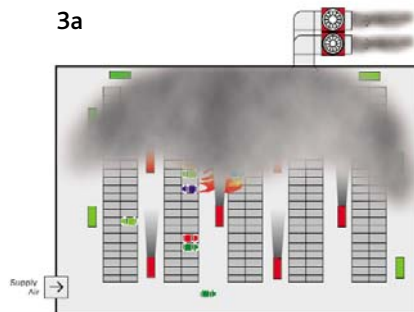




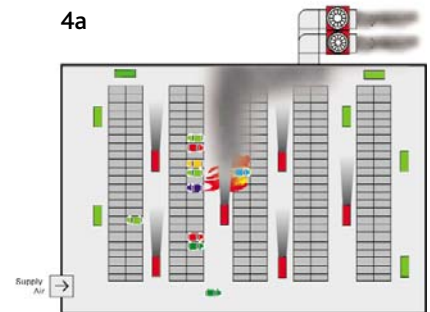
1a
The system runs at low speed ensuring that Carbon Monoxide levels and other contaminants are kept within acceptable limits. Strategically placed detectors monitor the air and only control the units which can directly effect the condition.



2a
If a fire starts in one of the vehicles and smoke starts to spread throughout the car park, the smoke detection system identifies the situation and the fire alarm system will be activated. The system will switch to smoke mode.

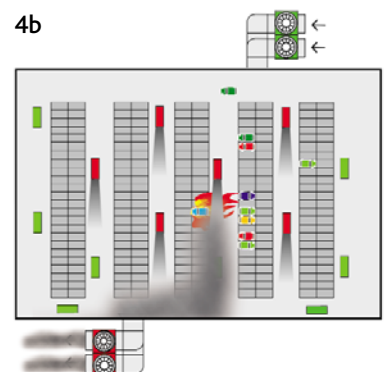
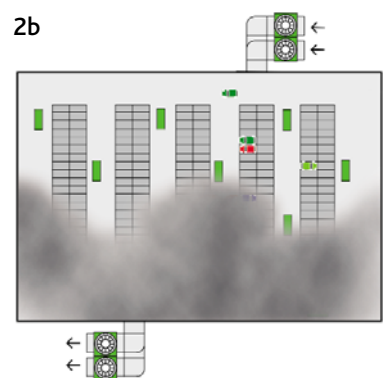
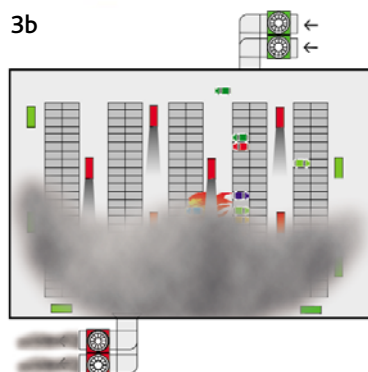
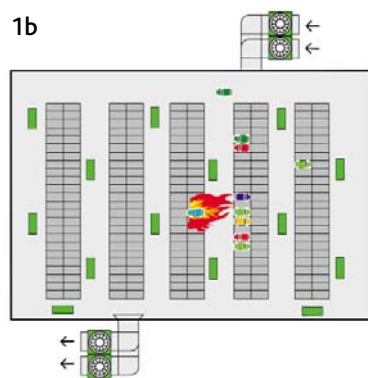


3a
Smoke detectors throughout the car park identify the units which can most effectively contain the smoke layer and increases the fan speed of these units to maximum, the main exhaust units are also switched to maximum.



4a
The smoke is contained and directed towards the main extract unit, where the smoke can be safely exhausted to atmosphere. This minimises the spread of smoke within the car park, keeping large areas clear of smoke, enabling the area to be quickly and safely evacuated.

THE SYSTEM IS ALSO REVERSIBLE



Key to figs. 1 - 4

- Car Park Impulse fan low speed/day to day
- Car Park Impulse fan high speed/smoke mode
- Main exhaust/extract unit, low speed/day to day
- Main exhaust/extract unit, high speed/smoke mode

SMOKE CONTROL FANS

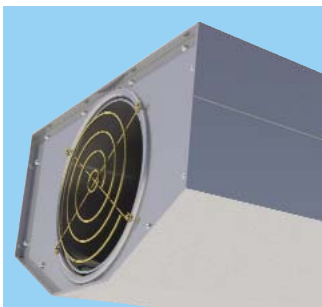
AXUS SVT2 IMPULSE CAR PARK VENTILATION FANS



Image shows unique mounting bracket and directional outlet diffuser.

PERFORMANCE

Maximum performance 1.8m³/s



Safety inlet guard.



Built in control box.

BENEFITS

SPACE SAVING - FROM 320MM

Low depth unit eliminates the need for ducting, maximising car park space availability.

FLAT PROFILE

Unit sits flush to ceiling ensuring dirt will not gather on top surface unlike round axial fans.

FULL DESIGN & INSTALLATION SERVICE

An experienced technical team offer design, supply, installation and commissioning to suit your project requirements.

QUIET SYSTEMS

Unit has inlet and outlet silencers ensuring low noise levels are maintained.

ENERGY EFFICIENT

By monitoring the air quality and operating the system at its optimum level the overall motor power and running costs can be reduced by up to 40%.

ALTERNATIVE FINISHES AVAILABLE

Units can be painted to match car park surroundings.

COST SAVINGS

Less ductwork can typically reduce costs by up to 30%.

SAFETY TESTED

All equipment is tested to EN12101-3, 300°C for 2 hours.

QUICK AND EASY INSTALLATION

Unique mounting bracket allows for 2 stage, 'quick' installation.

FULLY REVERSIBLE OPTION

Flexible directional flow responds to any fire location.

1 YEAR WARRANTY

TECHNICAL DETAILS & PERFORMANCE DATA

Fan Reference:	SVT2-1	SVT2-2
Airflow m ³ /s: Half/Full Speed	0.5/1.1	0.9/1.8
Thrust Newtons: Half/Full Speed*	5/25N	12/50N
Motor Power kw: Half/Full Speed*	0.23/1.1	0.23/1.1
Protection Class	IP55	IP55
Insulation	H	H
Electrical Supply	400/3/50	400/3/50
Motor FLC amps: Half/Full Speed	0.83/2.7A	0.83/2.7A
Motor SC amps: DOL Half/Full Speed	2.9/14.5	2.9/14.5
Temperature Classification: EN12101-3	300°C for 2 hours	300°C for 2 hours
Speed RPM: Half/Full Speed	1370/2775	1370/2775
Sound dBA @ 1m: Half/Full Speed	50/65	52/67
Material Finish	Galvanised	Galvanised
Dimensions A x B x C (mm)	2300 x 320 x 700*	2300 X 403 X 700*

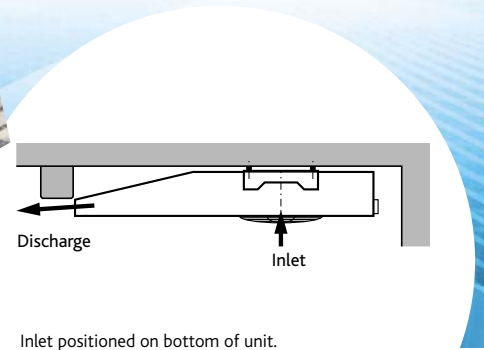
* These are based on an airflow deflector angle of 5°. **Paint finish available.

SVT2 can be provided single speed for control via frequency inverter.

*Allow an additional 55mm for the width of the Terminal Control Box.

SMOKE CONTROL FANS

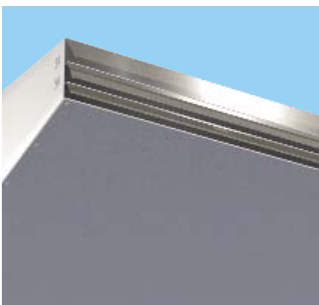
AXUS SVTC CENTRIFUGAL IMPULSE CAR PARK VENTILATION FANS



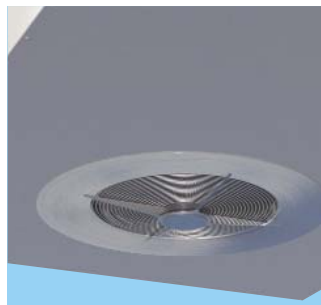
Inlet positioned on bottom of unit.

PERFORMANCE

Maximum performance 2.69m³/s



Discharge grille.



Inlet positioned on bottom of unit.

BENEFITS

SPACE SAVING

Low depth unit only 227mm deep eliminates the need for ducting, maximising car park space availability.

ENERGY EFFICIENT

By monitoring the air quality and operating the system at its optimum level the overall motor power and running costs can be reduced by up to 40%.

COST SAVINGS

Less ductwork can typically reduce costs by up to 30%.

AIR DISTRIBUTION

Large coverage of area resulting in fewer fans being required.

FULL DESIGN & INSTALLATION SERVICE

An experienced technical team offer design, supply, installation and commissioning to suit your project requirements.

SAFETY TESTED

All equipment is tested to EN12101-3.

1 YEAR WARRANTY

TECHNICAL DETAILS & PERFORMANCE DATA

Fan Reference:	SVTC-15*	SVTC-15-T6	SVTC-15-T8	SVTC-16*	SVTC-16-T6	SVTC-16-T8
Fan speed definition	Single Speed	Full & 2/3rds	Full & 1/2	Single Speed	Full & 2/3rds	Full & 1/2
Airflow m ³ /s: Low/High Speed	1.68	1.14/1.68	0.88/1.68	2.69	1.83/2.69	1.38/2.69
Thrust Newtons: Low/High Speed*	50	23/50	13/50	75	34/75	19/75
Motor Power kw: Low/High Speed*	1.5	0.55/1.5	0.25/1.5	2.2	0.75/2.2	0.37/2.2
Protection Class:	IP55	IP55	IP55	IP55	IP55	IP55
Insulation	H	H	H	H	H	H
Electrical Supply	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Motor FLC amps: Low/High Speed	3.3	1.8/3.6	1.15/3.75	5	2.6/5	1.6/5.1
Motor SC amps: DOL Low/High Speed	5.8	3.9/7.4	2.9/5.2	6.4	4/7.1	3.8/6.3
Temperature Classification: EN12101-3	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs
Speed RPM: Low/High Speed	1435	955/1425	715/1430	1435	955/1425	715/1430
Sound dBA @ 1m: Low/High Speed	78	69/78	64/78	85	76/85	71/85
Material Finish	Galvanised	Galvanised	Galvanised	Galvanised	Galvanised	Galvanised
Dimensions A x B x C (mm)	1265x227x790	1265x227x790	1265x227x790	1902x279x1150	1902x279x1150	1902x279x1150
Depth to bottom of guard	259	259	259	319	319	319
Dimension D	787	787	787	1150	1150	1150

*SVTC-15 and SVTC-16 are single speed and can be controlled via a frequency inverter.

SMOKE CONTROL FANS

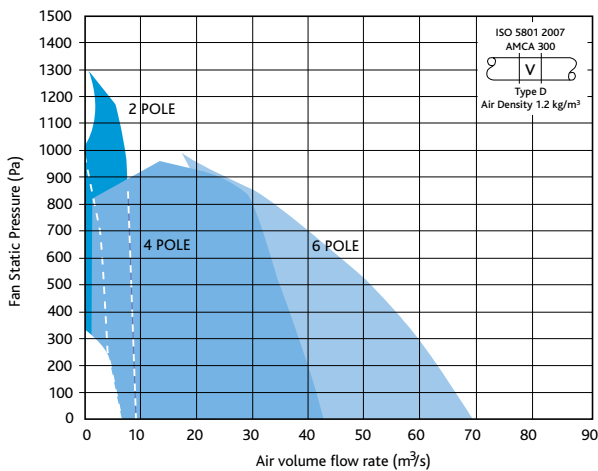
AXUS HIGH TEMPERATURE AXIAL FANS 200°C, 300°C & 400°C



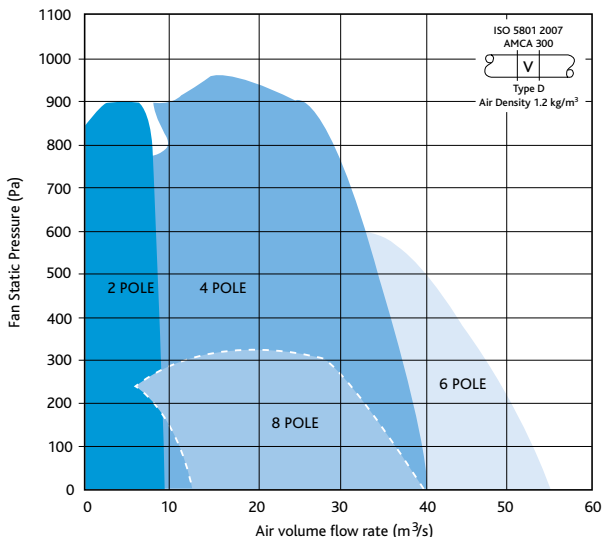
PERFORMANCE

An indication of the overall duty range is shown below. Please contact Nuair for any specific selections or duty outside the range indicated.

AXUS - Axial flow fans for smoke control (300°C for 2 Hours)



AXUS - Axial flow fans for smoke control (400°C for 2 Hours)



BENEFITS

TRIED & TESTED

Nuair's high temperature fans have been tested in accordance with the latest legislation and testing procedures. High temperature fans have been tested to EN12101-3 (2002) 300°C for 2 hours and 400°C for 2 hours.

HIGH TEMPERATURE PERFORMANCE

Units are suitable for smoke reservoir and non smoke reservoir applications. Units are dual purpose for day to day plus 'one off' emergency use.

WIDE RANGE

The widest range of high temperature axials available. A fan to match every application ensures maximum efficiency and saving costly energy.

HEAVY GAUGE GALVANISED STEEL CONSTRUCTION

Ensuring strength, durability, protection from damage during installation and corrosion resistant for a long life.

TESTED TO THE HIGHEST STANDARDS

Air performance to BS848 (part 1) 2007 and ISO5801 (part1) 2007 with acoustic performance to AMCA300. All carried out at our own test facilities to ensure the most accurate performance figures and noise data is provided, constantly monitored to give you up to date information you can rely on.

FAN OPTIONS

As well as contra-rotating & run/standby series, other options are available including 400°C for 2 hours & two speed.

COMPREHENSIVE ANCILLARIES

Including a range of attenuators, and mounting ancillaries all pre-selected for the individual fan to ensure a perfect match and eliminate any on-site fitting problems.

1 YEAR WARRANTY

SMOKE CONTROL FANS

AXUS RUN & STANDBY AXIAL FANS

AXUS CONTRA ROTATING AXIAL FANS



BENEFITS

GUARANTEED EMERGENCY VENTILATION

Run and standby fan ensures emergency ventilation in the case of fan failure.

HIGH PERFORMANCE

Developed to provide optimum performance for each case size. 13 Case diameters 315 - 1250mm. Airflow - up to 42m³/s. Static pressure - up to 2500 Pa. Operating temperature, 300°C for 2 hours, 400°C for 2 hours.

HIGH TEMPERATURE

Suitable for smoke reservoir and non smoke reservoir applications - EN 12101-3 2002. Dual purpose, for day to day plus 'one off' emergency use.

HIGHEST STANDARD TESTING

Air performance to BS848 (part 1) 2007 and ISO5801 (Part 1) 2007.

ACOUSTIC PERFORMANCE

AMCA300.

FLEXIBLE SOLUTION

Units can be installed at any angle.

MATCHING ANCILLARIES

A wide range of ancillaries is available.

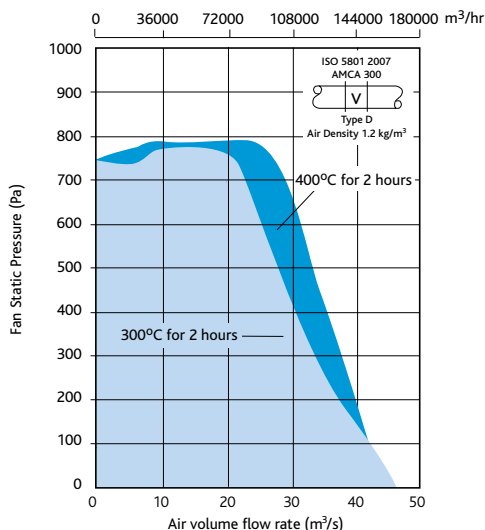
AVAILABLE OPTIONS

AXUS units suitable for two speed operation (full and half speed). AXUS units available with access doors suitable for cleaning and observation.

1 YEAR WARRANTY

Units suitable for continuous operation at temperatures up to 60°C and a 1 off operation in smoke mode.

PERFORMANCE



BENEFITS

HIGH PERFORMANCE

Developed to provide optimum performance for each case size. 13 Case diameters 315 - 1250mm. Airflow - up to 42m³/s. Static pressure - up to 2500 Pa. Operating temperature, 300°C for 2 hours, 400°C for 2 hours.

HIGH TEMPERATURE

Suitable for smoke reservoir and non smoke reservoir applications - EN 12101-3 2002. Dual purpose for day to day plus 'one off' emergency use.

HIGHEST STANDARD TESTING

Air performance to BS848 (part 1) 2007 and ISO5801 (Part 1) 2007.

ACOUSTIC PERFORMANCE

AMCA300.

FLEXIBLE SOLUTION

Units can be installed at any angle.

MATCHING ANCILLARIES

AV mounts, flexible connectors, mounting brackets, matching flanges, inlet cones, guard, backdraught damper.

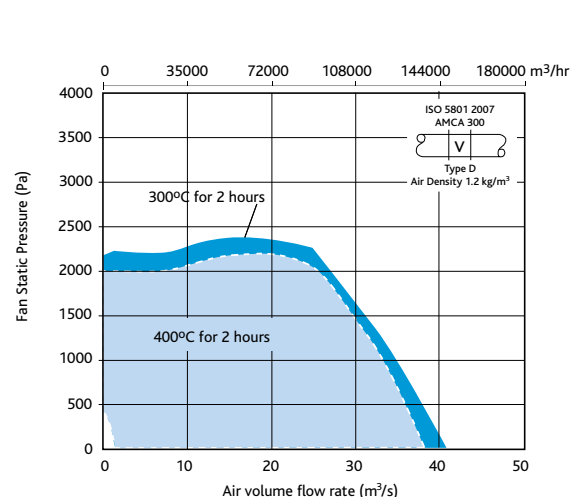
AVAILABLE OPTIONS

AXUS units suitable for two speed operation (full and half speed). AXUS units available with access doors suitable for cleaning and observation.

1 YEAR WARRANTY

Units suitable for continuous operation at temperatures up to 60°C and a 1 off operation in smoke mode.

PERFORMANCE



SMOKE CONTROL FANS

AXR-ROOF MOUNTED FAN/COWL COMBINATION 300°C FOR 1 HOUR & 400°C FOR 2 HOURS



PERFORMANCE

Suitable for all roof mounted smoke control applications in free intake and ducted applications up to 3m³/s.
Contact Nuairé for further information regarding performance details.

BENEFITS

VERTICAL DISCHARGE COWL

Low profile, high velocity. Tested in winds of 70mph and rainfall of 75mm/hr this low profile unit provides a weatherproof aesthetic installation.

HIGH PERFORMANCE

Airflow rates up to 23m³/s.
Static pressure up to 555Pa.
Operating temperatures –
300°C for 1 hour/400°C for 2 hours.

SUPERB BUILD QUALITY

Robust heavy gauge aluminium alloy (sizes 560 & 710) or painted galvanised steel (sizes 1000 & 1250) construction for strength and durability.

SIMPLE INSTALLATION

direct to roof curb.

EASY SELECTION

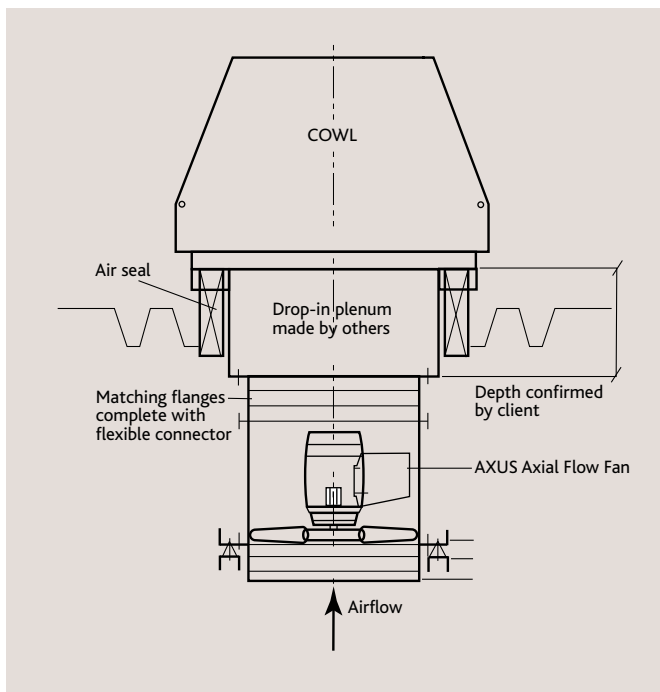
The cowl pressure drop is indicated on each fan performance graph to provide quick accurate information.

OPTIMUM SMOKE CLEARANCE

Developed to provide optimum performance smoke clearance safely via a high velocity vertical discharge as required by BS7346 Part 2.

TESTED TO THE HIGHEST STANDARDS

1 YEAR WARRANTY



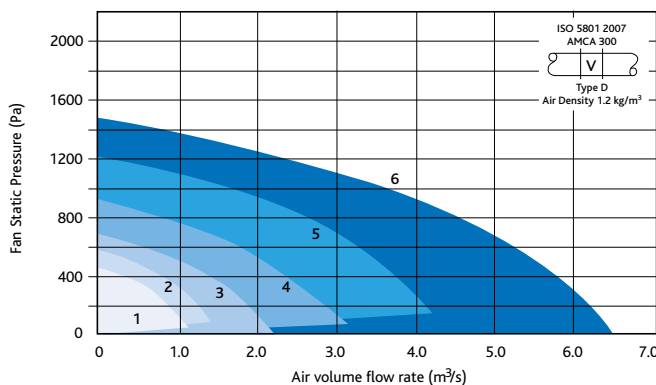
SMOKE CONTROL FANS

HIGH TEMPERATURE SQUIF FANS

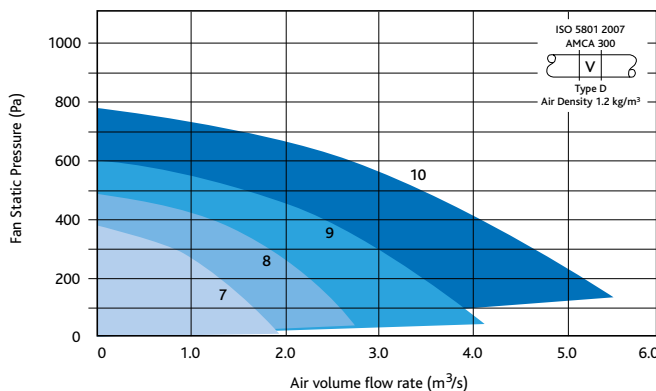


PERFORMANCE

High Temperature Squif - 4 pole



High Temperature Squif - 6 pole



BENEFITS

HIGH TEMPERATURE APPLICATION

Capable of running continuously at 90°C, ideal for kitchen canopy applications with a one off 400°C for 2 hours.

QUIET OPERATION

One of the quietest solutions for motor unit out of airstream applications.

EASY MAINTENANCE

'Out of air stream' allows for quick and easy access and lower maintenance costs.

IDEAL FOR HIGH RESISTANCES

High pressure development suitable for ducted systems.

FLEXIBLE SOLUTION

Can be mounted internally, externally, vertically or horizontally.

FAN TO SUIT ALL APPLICATIONS

2-speed motors available for day to day extract and smoke extract.

SAFETY TESTED

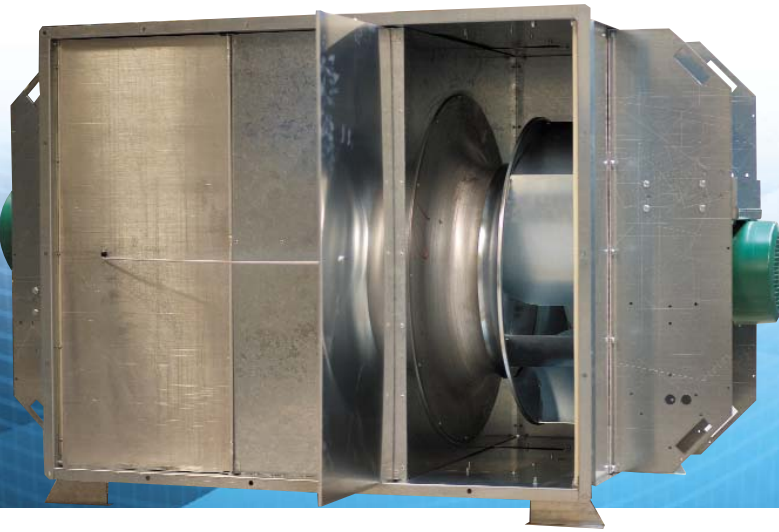
Fans are tested to comply to EN12101-3 2002.

1 YEAR WARRANTY

Note: only suitable for outside smoke reservoir applications.

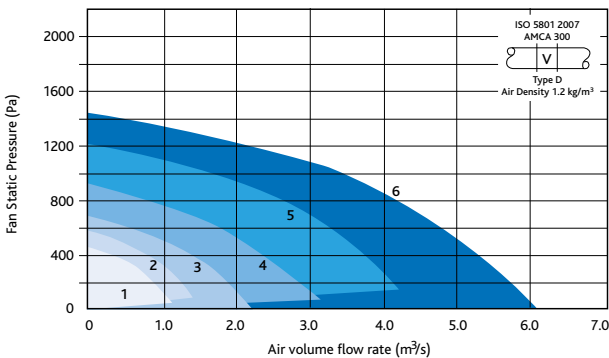
SMOKE CONTROL FANS

HIGH TEMPERATURE TWIN SQUIF FANS

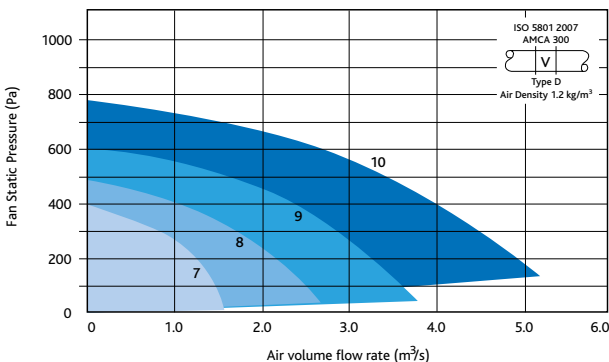


PERFORMANCE

High Temperature Twin Squif - 4 pole



High Temperature Twin Squif - 6 pole



BENEFITS

QUIET AND POWERFUL SOLUTIONS

High performance centrifugal motor/impeller combination providing a low noise solution.

CLEANER

'Out of air stream' motors are ideal for dirty extract and greasy environments. Cleaner motor improves cooling and extends motor life.

HIGH TEMPERATURE APPLICATION

Capable of running continuously at 90°C. Ideal for kitchen canopy applications with a one off 400°C for 2 hours.

EASY MAINTENANCE

'Out of air stream' motors allow for quick and easy access. Inspection hatches allow the internal parts to be easily checked and cleaned.

IDEAL FOR HIGH RESISTANCES

High efficiency centrifugal impellers provide high pressure development suitable for ducted systems and kitchen canopy with extreme filtration.

PREVENTS INTERNAL RECIRCULATION

Backdraft dampers inbuilt.

FLEXIBLE SOLUTION

Can be mounted internally, externally, vertically or horizontally. Mounting facilities included.

FAILURE DETECTION

Inverter detects fan failure and Ecosmart control sends signal to 2nd fan.

CONTROL BY OTHERS

FAN TO SUIT ALL APPLICATIONS

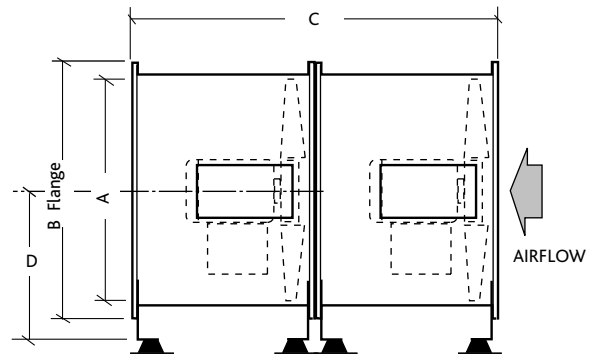
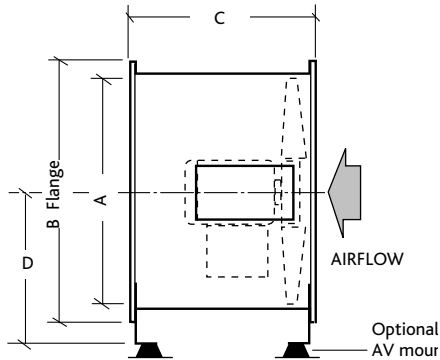
2-speed motors available for day to day extract.

1 YEAR WARRANTY

SMOKE CONTROL FAN DIMENSIONS

AXUS HIGH TEMPERATURE AXIAL FANS

AXUS RUN & STANDBY AXIAL FANS



DIMENSIONS (mm)

Code	A	B	C	D
AX31	315	400	365	210
AX35	350	430	380	240
AX40	400	490	440	270
AX45	450	540	450	300
AX45	450	540	600	300
AX50	500	608	465	340
AX50	500	608	615	340
AX56	560	670	440	370
AX56	560	670	615	370
AX63	630	740	480	430
AX63	630	740	600	430
AX63	630	740	800	430
AX71	710	814	455	470
AX71	710	814	700	470
AX80	800	910	440	540
AX80	800	910	840	540
AX90	900	1016	740	600
AX100	1000	1128	740	670
AX100	1000	1128	850	
AX112	1120	1240	730	750
AX112	1120	1240	865	750
AX112	1120	1240	1010	750
AX125	1250	1365	865	830
AX125	1250	1365	1010	830

DIMENSIONS (mm)

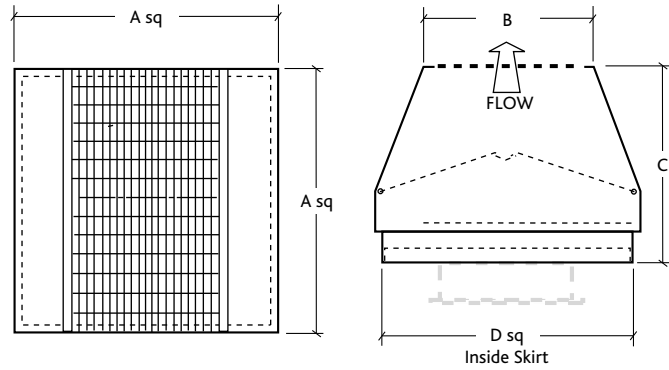
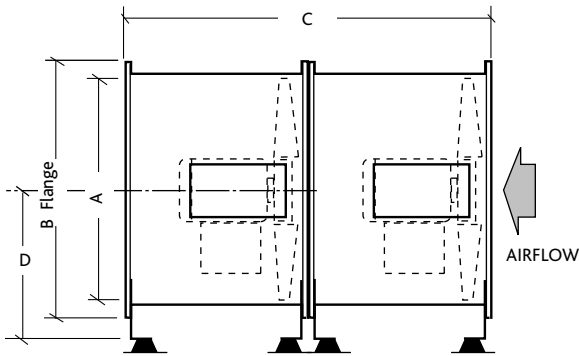
Code	A	B	C	D
AXT31	315	400	730	210
AXT35	350	430	760	240
AXT40	400	490	880	270
AXT45	450	540	900	300
AXT50	500	608	930	340
AXT50	500	608	1230	340
AXT56	560	670	880	370
AXT56	560	670	1230	370
AXT63	630	740	960	430
AXT63	630	740	1200	430
AXT71	710	814	910	470
AXT71	710	814	1400	470
AXT80	800	910	880	540
AXT80	800	910	1680	540
AXT90	900	1016	1480	600
AXT100	1000	1128	1480	670
AXT100	1000	1128	1700	670
AXT112	1120	1240	1460	750
AXT112	1120	1240	1730	750
AXT112	1120	1240	2020	750
AXT125	1250	1365	1730	830
AXT125	1250	1365	2020	830

1800 & 2000 are available with standard motors (ambient 55°C).
Unit sizes 1400 - 1600mm call Nuaire for details.

SMOKE CONTROL FAN DIMENSIONS

AXUS CONTRA ROTATING AXIAL FANS

AXR-ROOF MOUNTED FAN/COWL COMBINATION



DIMENSIONS (mm)

Code	A	B	C	D
AXC31	315	400	730	210
AXC35	350	430	760	240
AXC40	400	490	880	270
AXC45	450	540	900	300
AXC50	500	608	930	340
AXC50	500	608	1230	340
AXC56	560	670	880	370
AXC56	560	670	1230	370
AXC63	630	740	960	430
AXC63	630	740	1200	430
AXC71	710	814	910	470
AXC71	710	814	1400	470
AXC80	800	910	880	540
AXC80	800	910	1680	540
AXC90	900	1016	1480	600
AXC100	1000	1128	1480	670
AXC100	1000	1128	1700	670
AXC112	1120	1240	1460	750
AXC112	1120	1240	1730	750
AXC112	1120	1240	2020	750
AXC125	1250	1365	1730	830
AXC125	1250	1365	2020	830

DIMENSIONS (mm)

Code	A	B	C	D
ARX100	1295	1000	880	1234

For unit weights and pressure drops above 2500 pascals, please call our technical team on 029 2085 8200.

SINGLE FAN PRODUCTS

SECTION 3	PAGE
• OPUS 40 / 60 / 95 FANS	40
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SINGLE FANS

OPUS 40 / 60 / 95



ES-OPUS DC



BENEFITS

VERY QUIET OPERATION

Units offer high performance with low noise levels.

MOST EFFICIENT SYSTEMS

Latest DC motor design providing high performance with the lowest possible Specific Fan Power available in its class. Will conform to Part L2.

GUARANTEED VENTILATION

The most compact cost effective twin fan available for the duty range.

QUICK & EASY TO INSTALL

Unit can be installed as recessed or surface mounted on site.

SIMPLE TO COMMISSION

Integral control facility enables the duty to be precisely set without the need for additional controls.

CONTROLS

A choice of 'on-board' and 'remote' control options are available, including Ecosmart energy efficient controls.

FLEXIBLE SOLUTION - SIDE DISCHARGE

Unit can be installed horizontally or vertically. Range offers surface, recessed or duct mounted options.

CONTINUOUS VENTILATION

Twin fans allow for automatic changeover to standby fan in event of fan failure.

SPECIALIST OPTION

Vandal proof grille available for extra security and protection.

1 YEAR WARRANTY

BENEFITS

QUIETEST SOLUTIONS

Advanced fan motor and impeller technology providing the quietest unit available.

CONTINUOUS VENTILATION

Twin fans allow for automatic changeover to stand by fan in the event of fan failure.

MOST EFFICIENT SYSTEMS

Latest DC motor design providing high performance with the lowest possible Specific Fan Power available in its class.

SIMPLE COMMISSIONING

Integrated speed control enabling minimum and, maximum fan speed to be easily adjusted.

QUICK & EASY INSTALLATION

Unique self locating mounting bracket enables the unit to be quickly and efficiently installed.

HEALTHY ATMOSPHERE

Ecosmart sensors accurately control the ventilation levels.

CONTROLLABILITY

A choice of 'on-board' and 'remote' control options are available.

ECOSMART SPEED CONTROL

Ecosmart control included as standard.

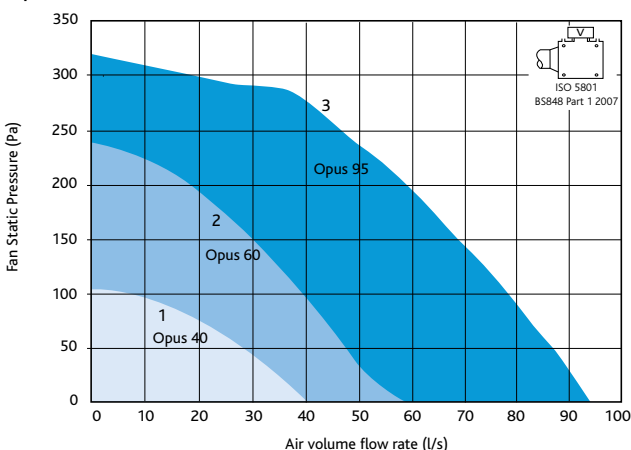
REMOTE FAILURE INDICATOR

Visual and audible failure indicator Code: OPUS-AVI.

1 YEAR WARRANTY

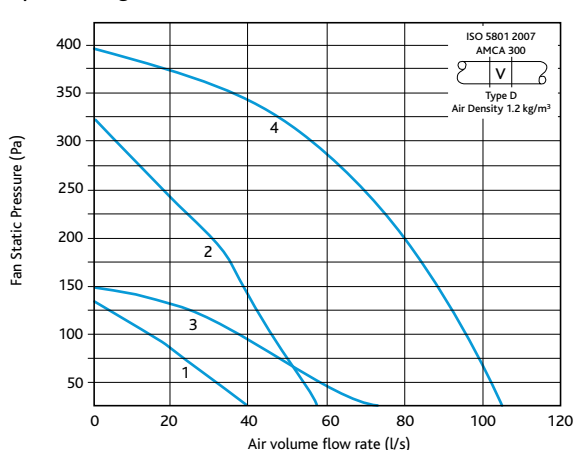
PERFORMANCE

Opus 40, 60 and 95



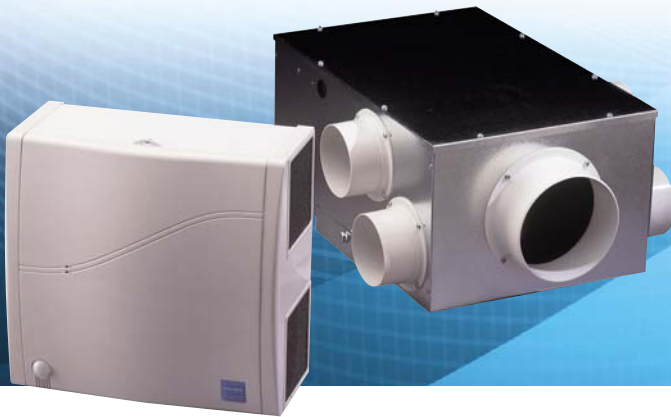
PERFORMANCE

Opus DC Single and Twinfan Units



SINGLE FANS

OPUS PLUS



BENEFITS

COMPACT & POWERFUL

Small design, high performance up to 150l/s.

VERY QUIET OPERATION

Acoustically treated case and 'on board' speed control offers high performance with low noise levels.

SIMPLE COMMISSIONING

Integrated speed control enabling maximum fan speed is easily adjusted between 50% and 100%.

INCREASED LIFECYCLE

Fans automatically change over to standby every 12 hours of run time, increasing units overall lifecycle.

LOW MAINTENANCE COST

Easy clean filters protect motor and fan assembly, reducing maintenance costs and extending fan life.

HEALTHY ATMOSPHERE

Minimum fan speed can easily be adjusted between 0% and 50% for continuous background ventilation without wasting motor power.

CONTROLLABILITY

A choice of 'on-board' and 'remote' control options are available.

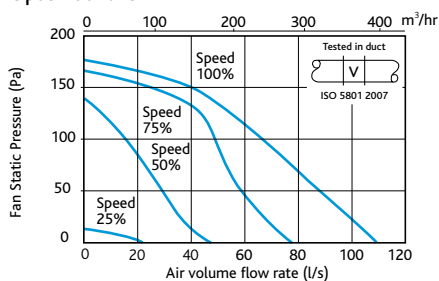
SPEED CONTROL INCLUDED

All units has speed control included as standard.

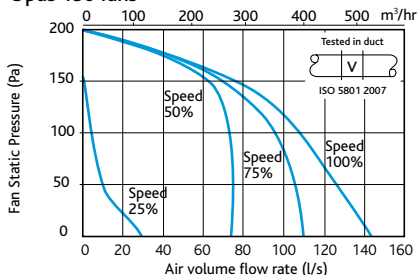
1 YEAR WARRANTY

PERFORMANCE

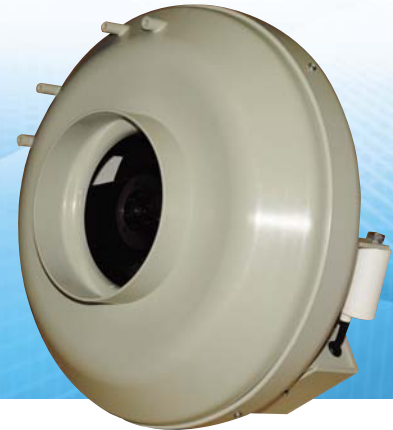
Opus 100 fans



Opus 150 fans



NALTUBE PLASTIC CASED TUBE FANS



BENEFITS

ROBUST BUILD QUALITY

Case manufactured from GRP reinforced polyimide.

WIDE RANGE OF APPLICATIONS

Domestic, commercial or industrial, with performances up to 0.36m³/s.

EASY INSTALLATION

Single phase 230V 50Hz with pre-wired junction box.

ADDED SAFETY

All motors contain thermal overload protection.

FULLY SPEED CONTROLLABLE

Can use either electronic or auto transformer voltage regulation controllers.

SUITS ALL DUCT SIZES

With a choice of 6 sizes.

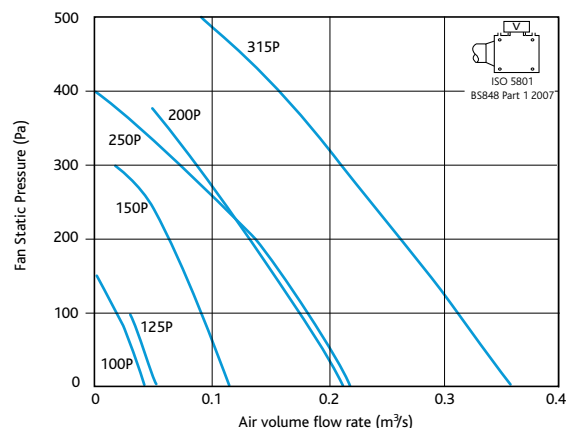
IP44, CLASS B INSULATION

Operating temperatures -40°C up to +60°C.

1 YEAR WARRANTY

PERFORMANCE

NALTUBE Fan Unit



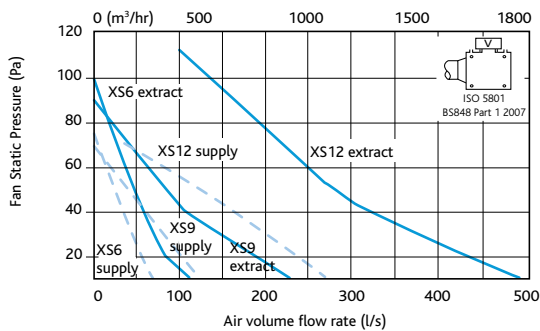
SINGLE FANS

XS EXTRACT WALL, WINDOW & ROOF EXTRACT FANS

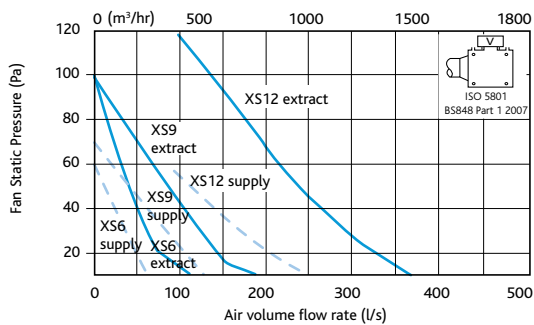


PERFORMANCE

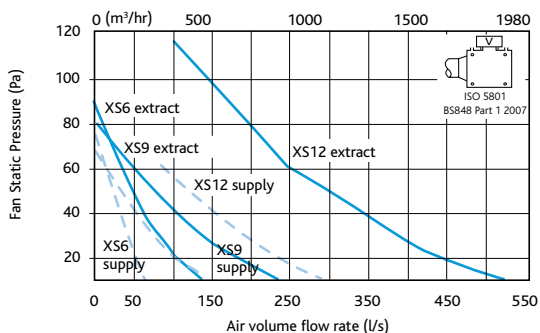
XS (GL) Window Extract Fans



XS (PR/FR) Roof Extract Fans



XS (WA) Wall Extract Fans



BENEFITS

MARKET LEADING DESIGN

Wide range to suit most applications including wall, window, roof and ceiling (6, 9 & 12").

QUIETEST OPERATION

Ultra quiet wax thermo actuator, together with market leading motor and impeller technology combine to produce one of the quietest wall fans available.

'MULTI' FAN SPEED CONTROL

Allows up to 5 fans to be connected to one speed control.

HIGH PERFORMANCE

High efficiency impeller and external rotor motor out performs (up to 530l/s/ 1908m³/hr) its competitors at much lower noise levels (from 31dBA).

FLEXIBLE SOLUTION

Reversible for extract and input with infinitely variable speed control.

SAVE ENERGY & MONEY

Economy speed setting that will maximise performance at the lowest energy use.

COMPLETE USER SAFETY

Robust construction, manufactured from flame retardant ABS polymer IP44 rated for long life.

EASY REFURBISHMENT

XS refurb kits are quick to install and can be used to replace most existing systems.

FLEXIBLE CONTROLS

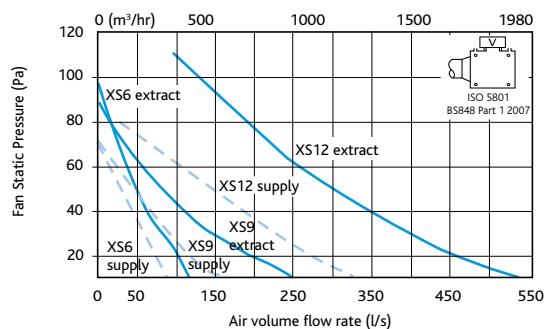
A wide range of sensors including PIR, humidity, air quality, run on timer and thermostat can be integral within the unit or mounted separately.

EASY TO SPECIFY AND ORDER

Fans are supplied complete with kit ensuring no missing components on-site.

1 YEAR WARRANTY

XS (CL) Roof Ceiling Fans



SINGLE FANS

NALT (H & L) STEEL CASE TUBE FAN



BENEFITS

ROBUST BUILD QUALITY

Case manufactured from high grade corrosive resistant galvanised steel.

WIDE RANGE OF APPLICATIONS

Domestic, commercial or industrial, with performances from 0.081 up to 0.53m³/s.

EASY INSTALLATION

Single phase 230V 50Hz with pre-wired junction box.

ADDED SAFETY

All motors contain thermal overload protection.

FULLY SPEED CONTROLLABLE

Can use either electronic or auto transformer voltage regulation controllers.

SUITS ALL DUCT SIZES

With a choice of 6 sizes and a high performance model also available.

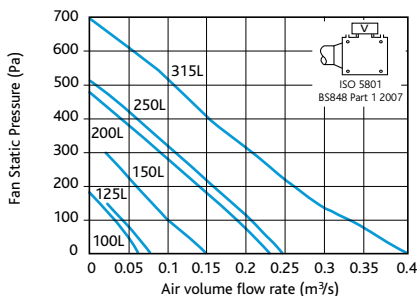
IP44, CLASS B INSULATION

Operating temperatures -40°C up to +60°C.

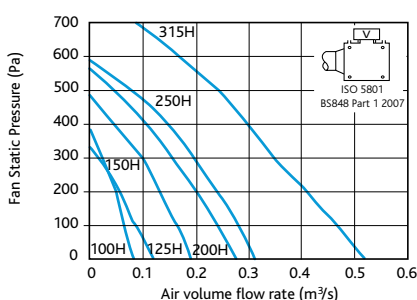
1 YEAR WARRANTY

PERFORMANCE

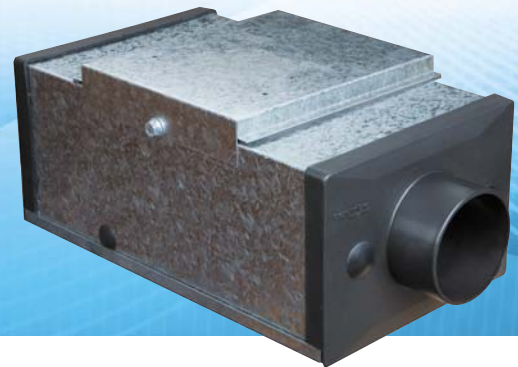
NALT Fan Unit (L)



NALT High Performance Fan Unit (H)



SQURBO



BENEFITS

LOW PROFILE

Reduced case depth makes unit ideal for applications where space is limited.

HIGH PERFORMANCE

Centrifugal impellers offer high performance combined with extremely low noise levels, meeting all your requirements.

QUIET SOLUTION

Fan/silencer combinations available to meet your design requirements.

PEACE OF MIND

Scurbo fans are tested to comply with all relevant standards.

UNIQUE 'QUICK' FIXING BRACKET

Reduces cost by saving time spent on site. Also incorporates an anti-vibration seal - no additional AV mounts required.

REMOVABLE FAN ASSEMBLY

Quick and easy to remove access panel for easy maintenance.

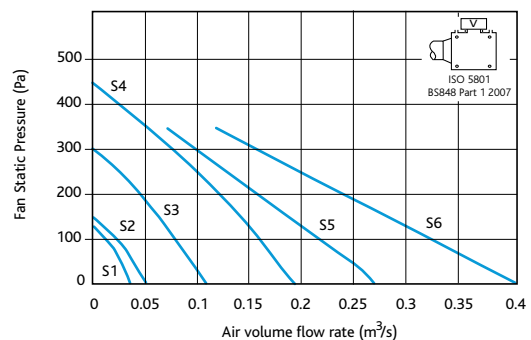
'PERFECT MATCH' CONTROLS & ANCILLARIES

Controls and ancillaries are available to suit exact requirements.

1 YEAR WARRANTY

PERFORMANCE

Scurbo Fan Unit



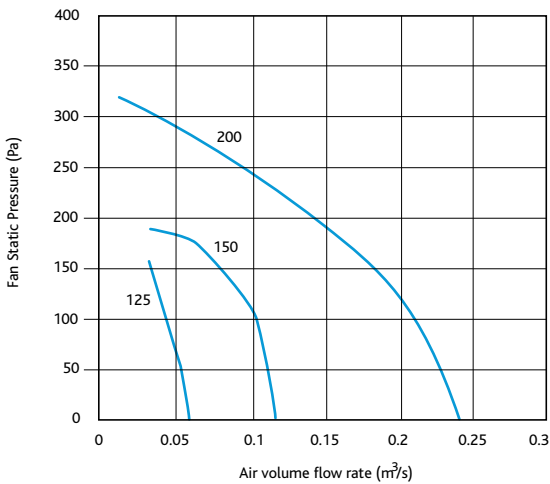
SINGLE FANS

NALAF INTERNAL ACOUSTIC FAN



PERFORMANCE

NALAF Acoustic Single Fan Units 125, 150 and 200



BENEFITS

HARD WEARING ON SITE

Manufactured galvanised steel casing with a natural finish.

A QUIET SOLUTION

The casing is acoustically treated, and the unit has a direct drive forward curved centrifugal impeller.

EASE OF ACCESS

Access panels on the top and bottom of the casing provide quick, easy access for quick maintenance, limiting maintenance costs.

'PERFECT MATCH' DUCTWORK

The unit has two ductwork connections for standard duct sizes.

WIDE CHOICE

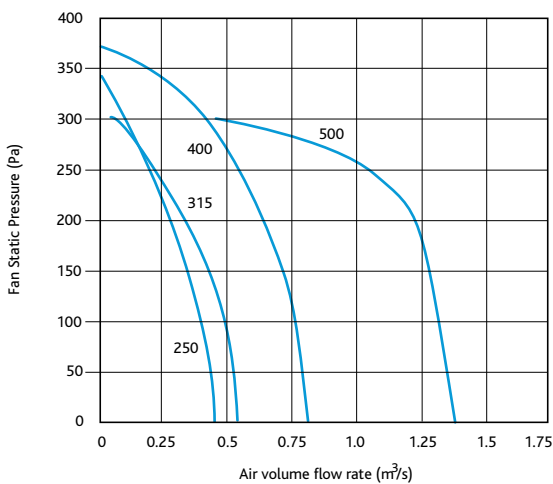
The unit is available in a choice of 7 sizes.

WIDE CHOICE OF ANCILLARIES

Silencers, AV's, flexible ducting and speed controls.

1 YEAR WARRANTY

NALAF Acoustic Single Fan Units 250, 315, 400 and 500



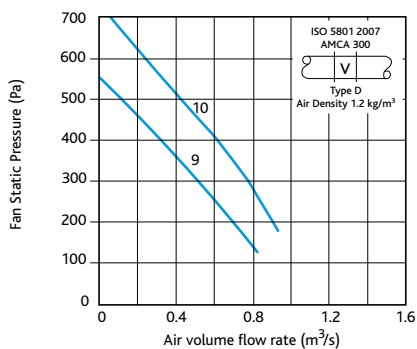
SINGLE FANS

NALSF INTERNAL DUCTED FAN

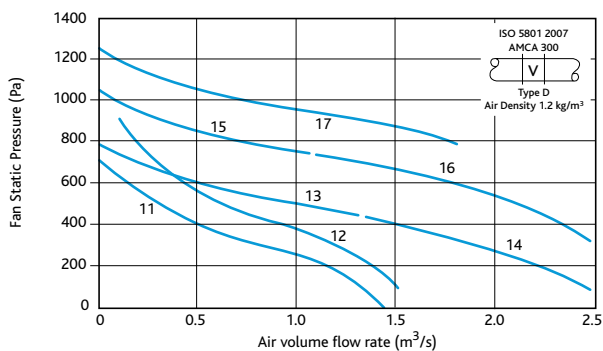


PERFORMANCE

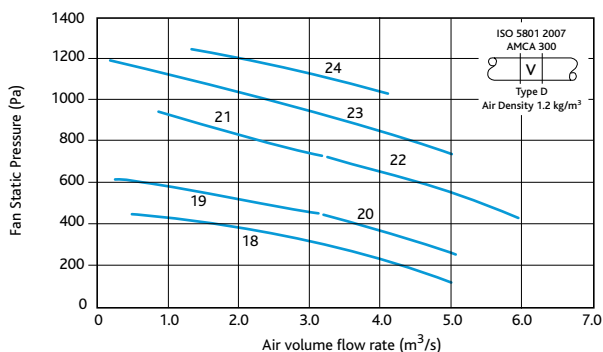
NALSF Fan Units 9 and 10



NALSF Fan Units 11 to 17



NALSF Fan Units 18 to 24



BENEFITS

HARD WEARING ON SITE

Internal in-line ducted single fan unit manufactured from robust aluzinc.

WIDE RANGE

A choice of 16 sizes.

FLEXIBLE OPERATION

Fan is suitable for operation in ambient temperatures up to 60°C. All units may be installed up to a maximum angle of 5°.

CHOICE OF ANCILLARIES

Long and standard silencers and flexible connectors.

EASY MAINTENANCE

With top access panel.

DUCTWORK CONNECTORS

Circular (sizes 9-17) or rectangular (sizes 18-24).

VERY QUIET

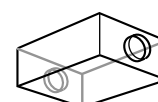
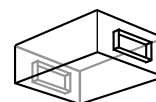
Belt driven & acoustically lined. Fan assemblies incorporate forward curved centrifugal impeller belt driven by BS5000 motor.

1 YEAR WARRANTY

CONFIGURATIONS

Rectangular duct connections sizes 18 - 24

Circular duct connections sizes 9 - 17



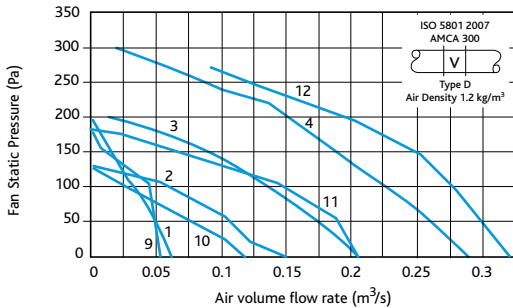
SINGLE FANS

NALSRF EXTERNAL & INTERNAL ROOF MOUNTED DIRECT & BELT DRIVE FANS

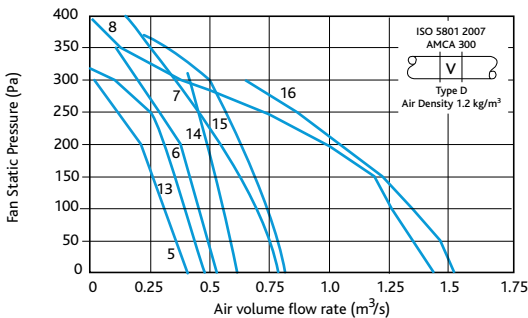


PERFORMANCE

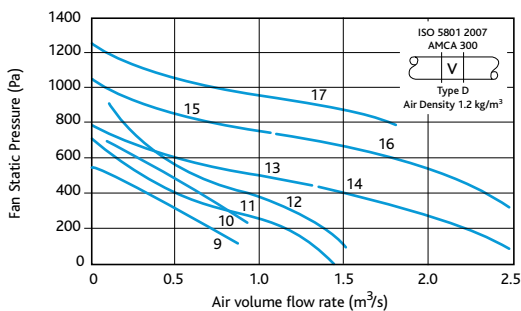
NALSRF Direct Drive Standard units 1 - 4 and Spigot to Spigot units 9 - 12



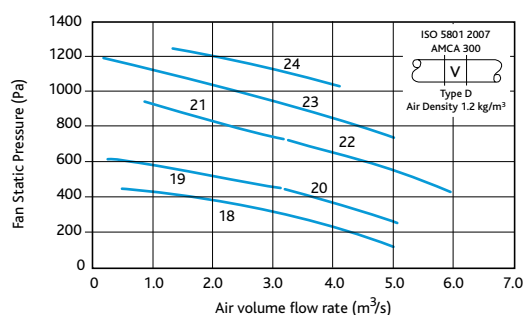
NALSRF Direct Drive Back to Grille units 5 - 8 and Spigot to Spigot units 13 - 16



NALSRF Belt Drive Fan Units 9 to 17



NALSRF Belt Drive Fan Units 18 to 24



BENEFITS

HARD WEARING ON SITE

External/internal roof mounted single fan units with a choice of direct or belt drive, manufactured from robust aluzinc.

WIDE RANGE

Belt drive 16 sizes in 3 configurations. Direct drive 8 models and 3 configurations to choose from.

FLEXIBLE OPERATION

Fan is suitable for operation in ambient temperatures up to 60°C. All units may be installed up to a maximum angle of 5°.

CHOICE OF ANCILLARIES

Long and standard silencers and flexible connectors.

EASY MAINTENANCE

With top access panel.

DUCTWORK CONNECTORS

Circular (sizes 9-17) or rectangular (sizes 18-24).

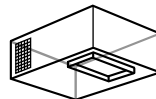
VERY QUIET

Fan assemblies incorporate forward curved centrifugal impeller and BS5000 motor.

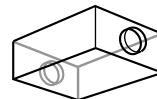
1 YEAR WARRANTY

CONFIGURATIONS

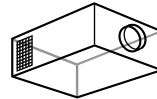
Standard duct connections
sizes 1 - 8



Spigot to spigot connections
sizes 1 - 8



Back to grille connections
sizes 1 - 8



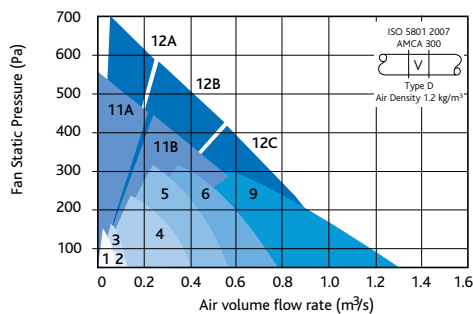
SINGLE FANS

XTRACTOR EXTERNAL & INTERNAL ROOF MOUNTED DIRECT & BELT DRIVE FANS

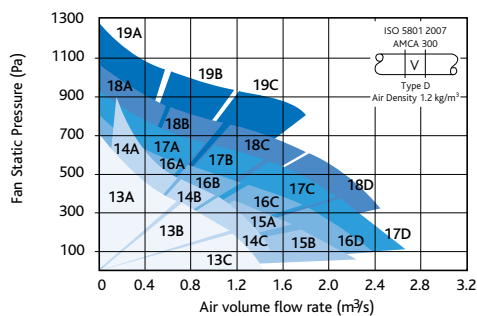


PERFORMANCE

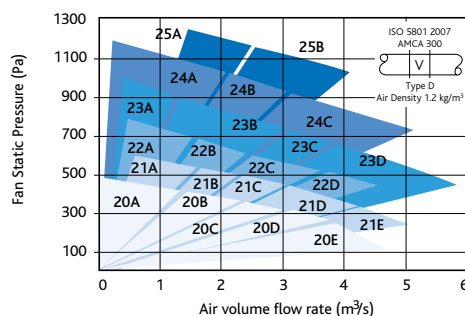
Externally Mounted Fan Units 1-12



Externally Mounted Fan Units 13-19



Externally Mounted Fan Units 20-25



BENEFITS

QUIETEST INSTALLATION

The high rigidity, double skinned construction produces the quietest noise to duty ratio unit in the industry.

LOW DEPTH 350MM (INTERNAL ONLY)

The ESXL version at only 350mm deep provides the perfect fit.

PART L EFFICIENT

The fan impeller and motor are high efficiency IE2 motors to EN60034-30 with high efficiency forward or backward curved centrifugal impellers provide the most efficient solution. (Available on larger sizes, 11 and above).

FLEXIBLE SOLUTION

Ideal for either internal or external applications.

EASE OF ACCESS

Access panels provide quick and easy access for quick maintenance.

SAFETY TESTED

Motors are pre-wired to external IP55 rated terminal box for ease of installation.

'PERFECT MATCH' ATTENUATORS

Wide range of attenuators available to assist in meeting design criteria.

ECOSMART COMPATIBILITY

Units can be supplied with Ecosmart controls, providing a simple to install, easy to commission, energy efficient solution. Also facilitates the interconnection of a supply AHU.

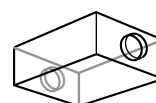
BMS & COMMISSIONING OPTION

Unit can be provided with integrated speed controls for commissioning purposes. This can be upgraded to a BMS option which gives these features plus BMS interfaces. Ecosmart has these features as standard.

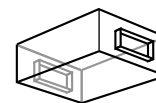
1 YEAR WARRANTY

CONFIGURATIONS

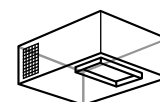
Circular duct connections



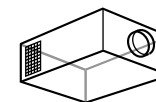
Rectangular duct connections



Rectangular bottom connection

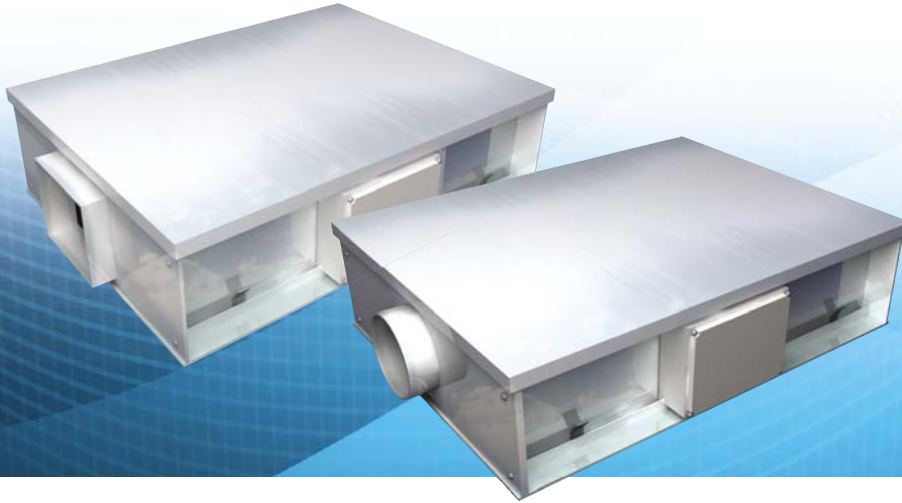


Back to grille connections



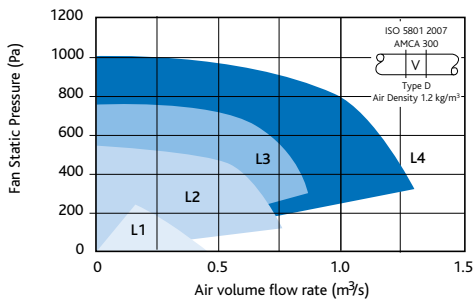
SINGLE FANS

XTRACTOR EXTERNAL & INTERNAL ROOF MOUNTED DIRECT & BELT DRIVE FANS CONT.

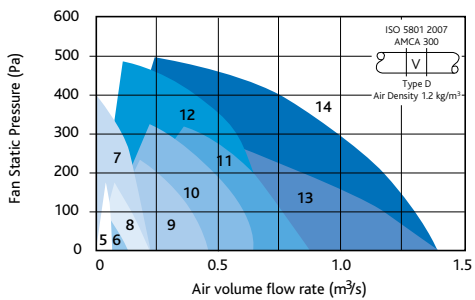


PERFORMANCE

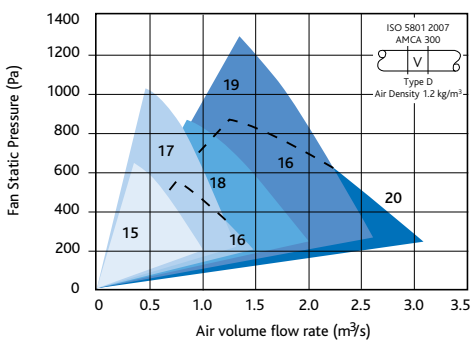
Internally Mounted Fan Units 1 - 4



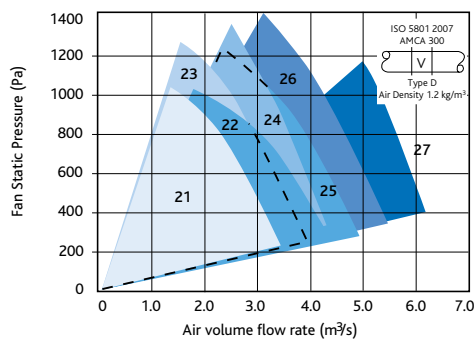
Internally Mounted Fan Units 5 - 14



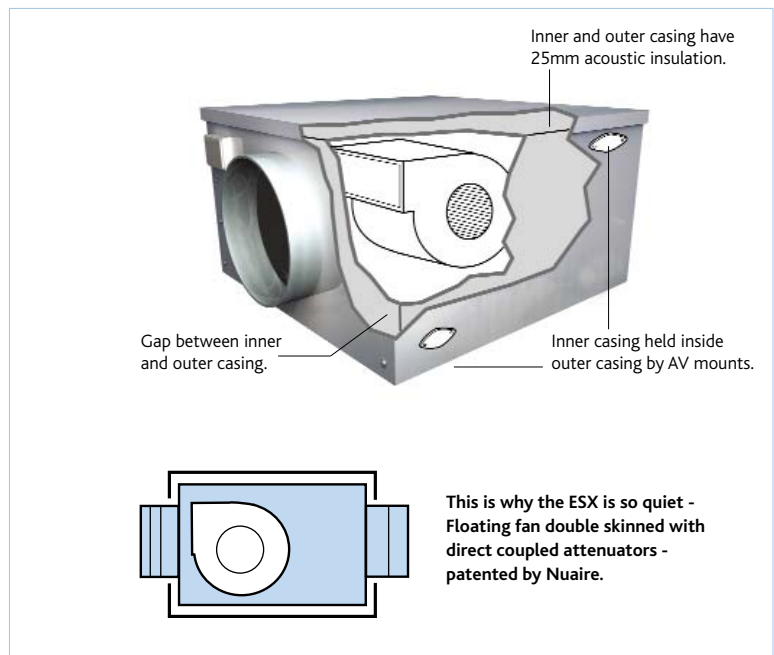
Internally Mounted Fan Units 15 - 20



Internally Mounted Fan Units 21 - 27

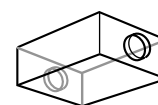


FLOATING FAN TECHNOLOGY

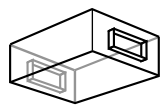


CONFIGURATIONS

Circular duct connections

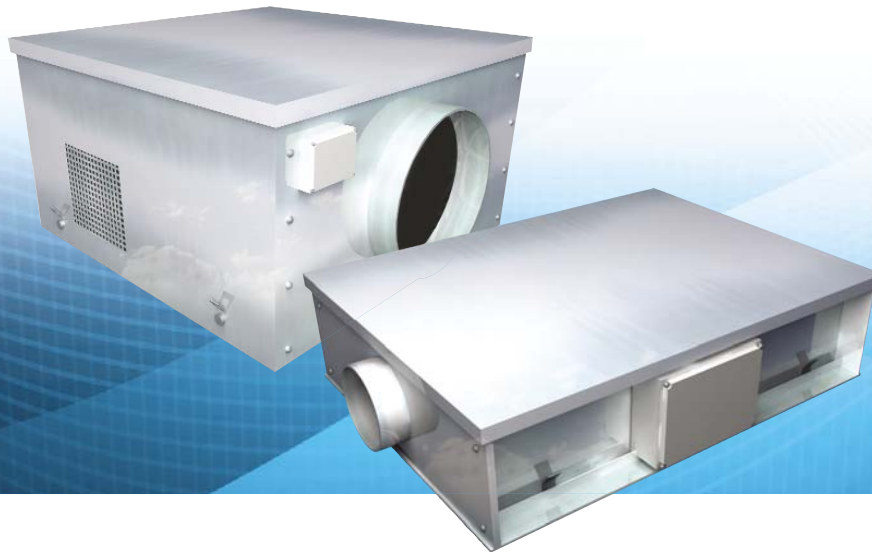


Rectangular duct connections



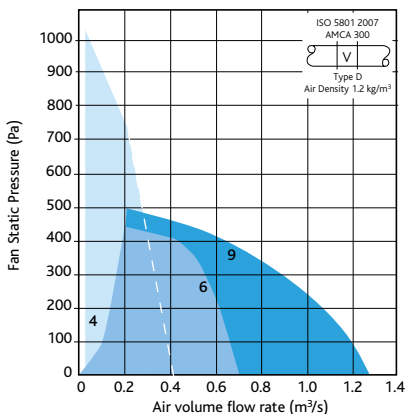
SINGLE FANS

XTRACTOR CONSTANT PRESSURE/CVD DAMPERS

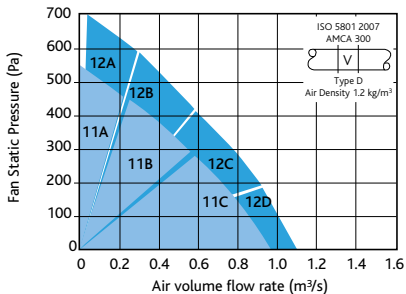


PERFORMANCE

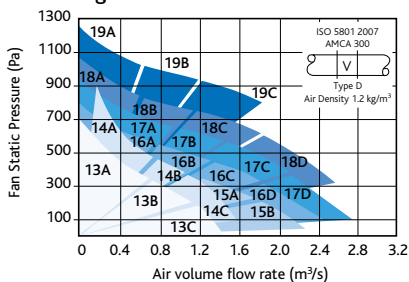
ESXCP Single fans 4 - 9



ESXCP Single fans 11A - 12D



ESXCP Single fans 13A - 19C



BENEFITS

QUIETEST SYSTEMS

Nuaire's unique integrated silencer means that your systems acoustic requirements both induct (suction side) and breakout are maintained whilst saving space on site.

QUIET OPERATION

Does not generate noise by throttling back on balancing dampers required in conventional systems.

TRUE DEMAND VENTILATION

Only the areas requiring ventilation receive ventilation.

SAVES ENERGY

Up to 70% saving over conventionally controlled central systems.

UNIQUE DIRECT ACTING MULTI-POSITION DAMPER/GRILLE

Ensures operation only when room occupied with integrated PIR.

PRE-WIRED

All components assembled, wired and tested at the Nuaire manufacturing facility. - Simply plug and go.

ENHANCED CAPITAL ALLOWANCE COMPLIANT

Immediate benefits to your client.

INTEGRATED SILENCER

Sizes 6 and 9.

DUCT MOUNTED VERSION OF DAMPER

For unobtrusive flexibility.

TWIN OR SINGLE

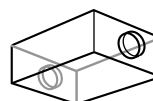
Twin or single fan options.

1 YEAR WARRANTY

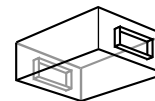
Note: These units have the pressure sensor configured for extract application. For supply applications please contact Nuaire.

CONFIGURATIONS

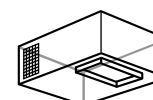
Circular duct connections



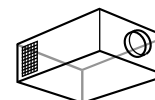
Rectangular duct connections



Rectangular bottom connection



Back to grille connections



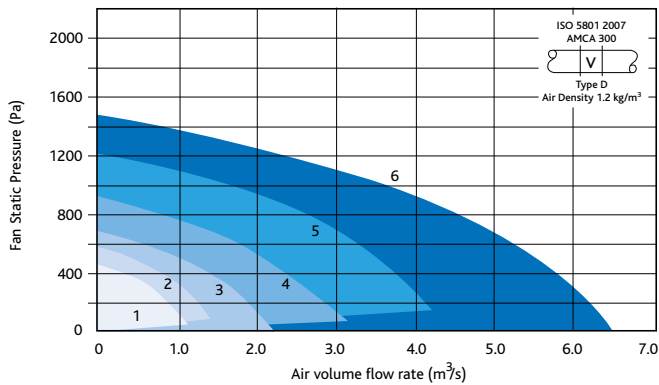
SINGLE FANS

SQUIF HIGH PRESSURE & VOLUME FANS

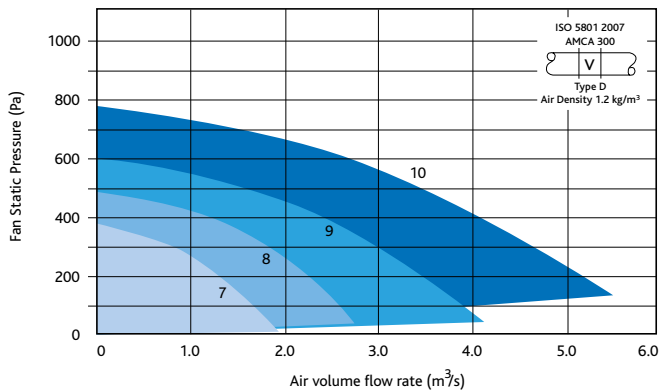


PERFORMANCE

Squif Single Fans - 4 pole



Squif Single Fans - 6 pole



BENEFITS

QUIET OPERATION

One of the quietest solutions for motor unit out of airstream applications. The units shall be suitable for operation in airstream temperatures up to 90°C.

CLEANER OPERATION

'Out of air stream' motors are ideal for dirty extract and greasy environments. Cleaner motor operation extends motor life.

IDEAL FOR HIGH RESISTANCES

Backward curved centrifugal impellers provide high pressure development suitable for ducted systems and kitchen canopy with extreme filtration.

FLEXIBLE SOLUTION

Can be mounted internally, externally, vertically or horizontally.

CONTROL-ABILITY AS STANDARD

All 3 phase units have the flexibility to be speed controlled utilising Nuaire Ecosmart controls or frequency inverters.

INSPECTION PANELS

Allow for easy access.

FAN TO SUIT ALL APPLICATIONS

2-speed motors available for day-to-day extract.

EASY MAINTENANCE

'Out of air stream' allows for quick and easy access and lower maintenance costs.

ECOSMART COMPATIBILITY

Can be supplied with Ecosmart controls, providing a simple to install, easy to commission, energy efficient solution. Also facilitates the interconnection of supply AHU.

1 YEAR WARRANTY

Note: only suitable for outside smoke reservoir applications.

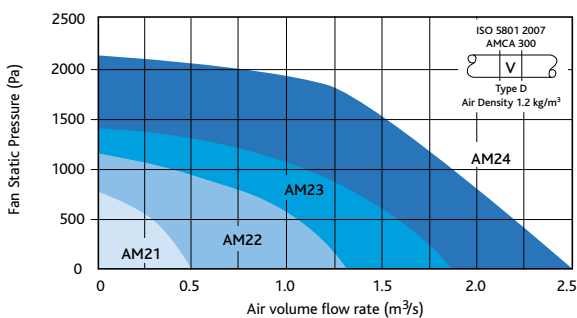
SINGLE FANS

AIRMOVER FANS

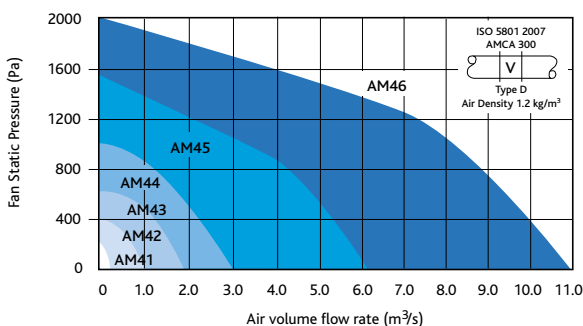


PERFORMANCE

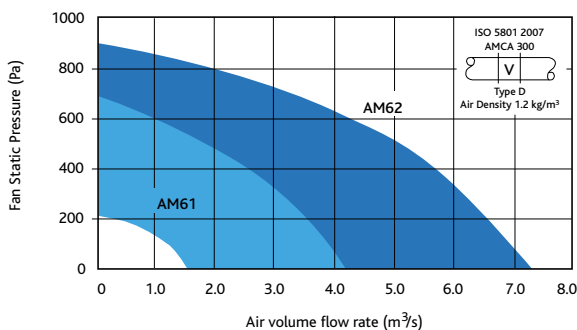
Airmover - 2 pole Units



Airmover - 4 pole Units



Airmover - 6 pole Units



BENEFITS

QUIETEST INSTALLATION

The high rigidity, double skinned construction produces the quietest noise to duty ratio unit in the industry, ensuring that your system requirements are easily met.

IDEAL FOR DUCTING

Units are constructed with a square case and mezz flange to suit ducted applications.

ROBUST PROTECTION

Strong aluzinc and pentapost construction provides long life and helps minimise onsite installation damage.

FLEXIBLE SOLUTION

Ideal for either internal or external applications.

EASE OF ACCESS

A panel provides quick and easy access reducing maintenance costs.

CONTROL-ABILITY AS STANDARD

All models have the flexibility to be speed controlled utilising a Nuair Ecosmart control.

FAN TO SUIT ALL APPLICATIONS

2-speed options available. Class 'H' insulated motors are available. Contact Nuair for details.

SAFETY TESTED

Motors are pre-wired to external IP55 rated terminal box for ease of installation.

'PERFECT MATCH' ATTENUATORS

Wide range of attenuators available to assist in meeting design criteria.

ECOSMART COMPATIBILITY

Units can be supplied with Ecosmart controls, providing a simple to install, easy to commission, energy efficient solution. Also facilitates the interconnection of a supply AHU.

1 YEAR WARRANTY

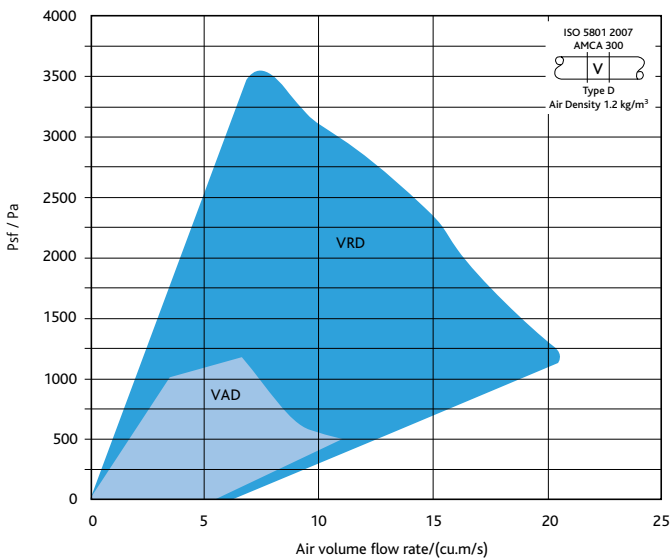
SINGLE FANS

V RANGE CENTRIFUGAL FANS



PERFORMANCE

An indication of the overall duty range is shown below, a selection of which is covered in this brochure. Please contact Nuair for any duty outside the range indicated.



BENEFITS

WIDE RANGE

The widest range of centrifugal fans available.

A fan to match every application ensures maximum efficiency and saving costly energy.

CONSTRUCTION

Heavy gauge galvanised steel construction ensuring strength, durability, protection from damage during installation and corrosion resistant for a long life.

TESTED TO THE HIGHEST STANDARDS

Tested to ensure the most accurate performance figures and noise data is provided, constantly monitored to give you up to date information you can rely on.

FAN OPTIONS

Options available include two speed and run and standby motors.

WIDE CHOICE OF ANCILLARIES

Including a range of attenuators, and mounting ancillaries all pre-selected for the individual fan to ensure a perfect match and eliminate any on-site fitting problems.

1 YEAR WARRANTY

TWIN FAN PRODUCTS

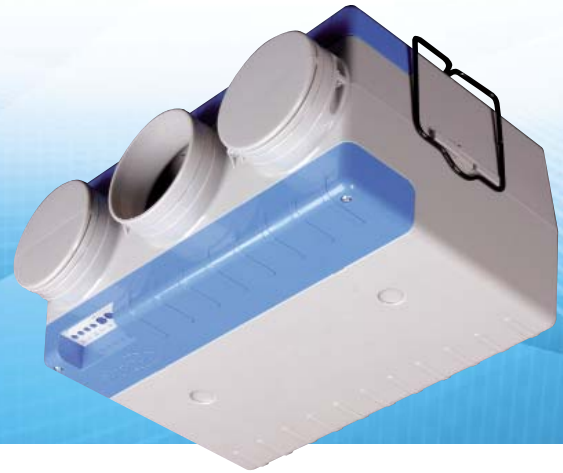
SECTION 4	PAGE
• OPUS 40 / 60 / 95 FANS	54
• ES-OPUS DC FANS	54
• OPUS PLUS FANS	55
• NALTF FANS	56
• NALTRF FANS	57 - 58
• AIRE-VOLVE FANS	59
• QUIETSCROLL ECOSMART FANS	60 - 61
• CONSTANT PRESSURE FANS	62
• CONSTANT PRESSURE / CVD DAMPERS	63
• TWIN SQUIF FANS	64

TWIN FANS

OPUS 40 / 60 / 95



ES-OPUS DC



BENEFITS

VERY QUIET OPERATION

Units offer high performance with low noise levels.

MOST EFFICIENT SYSTEMS

Latest DC motor design providing high performance with the lowest possible Specific Fan Power available in its class. Will conform to Part L2.

GUARANTEED VENTILATION

The most compact cost effective twin fan available for the duty range.

QUICK & EASY TO INSTALL

Unit can be installed as recessed or surface mounted on site.

SIMPLE TO COMMISSION

Integral control facility enables the duty to be precisely set without the need for additional controls.

CONTROLS

A choice of 'on-board' and 'remote' control options are available, including Ecosmart energy efficient controls.

FLEXIBLE SOLUTION - SIDE DISCHARGE

Unit can be installed horizontally or vertically. Range offers surface, recessed or duct mounted options.

CONTINUOUS VENTILATION

Twin fans allow for automatic changeover to standby fan in event of fan failure.

SPECIALIST OPTION

Vandal proof grille available for extra security and protection.

1 YEAR WARRANTY

BENEFITS

QUIETEST SOLUTIONS

Advanced fan motor and impeller technology providing the quietest unit available.

CONTINUOUS VENTILATION

Twin fans allow for automatic changeover to stand by fan in the event of fan failure.

MOST EFFICIENT SYSTEMS

Latest DC motor design providing high performance with the lowest possible Specific Fan Power available in its class.

SIMPLE COMMISSIONING

Integrated speed control enabling minimum and, maximum fan speed to be easily adjusted.

QUICK & EASY INSTALLATION

Unique self locating mounting bracket enables the unit to be quickly and efficiently installed.

HEALTHY ATMOSPHERE

Ecosmart sensors accurately control the ventilation levels.

CONTROLLABILITY

A choice of 'on-board' and 'remote' control options are available.

ECOSMART SPEED CONTROL

Ecosmart control included as standard.

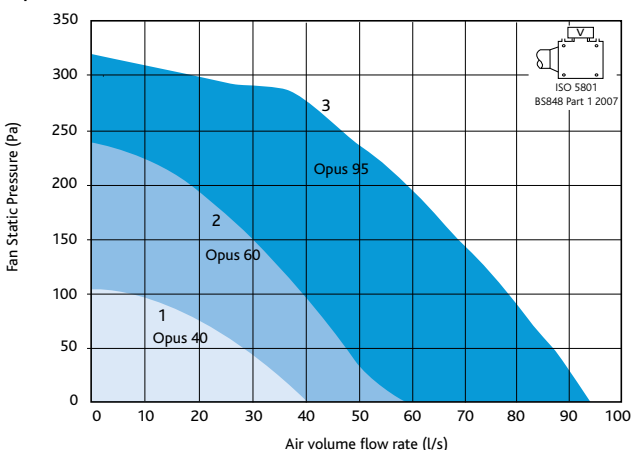
REMOTE FAILURE INDICATOR

Visual and audible failure indicator Code: OPUS-AVI.

1 YEAR WARRANTY

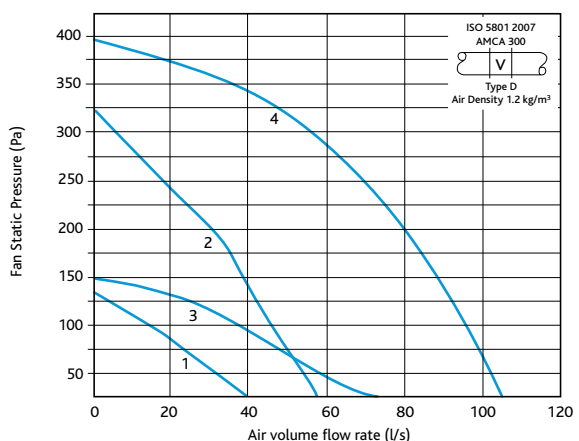
PERFORMANCE

Opus 40, 60 and 95



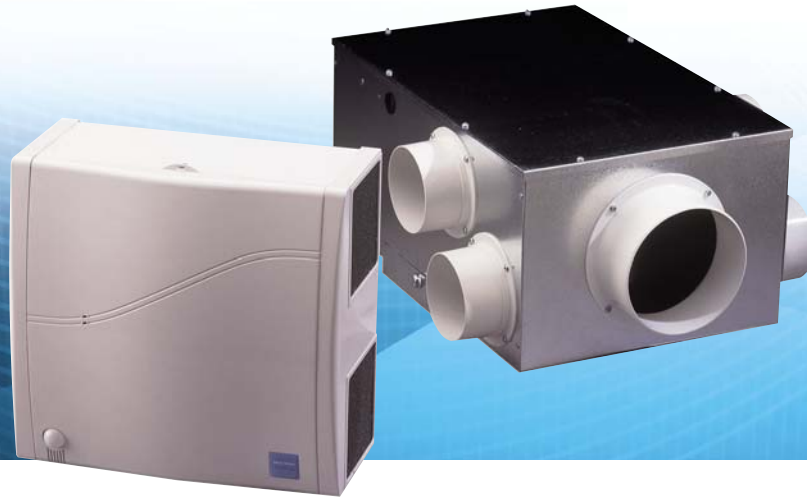
PERFORMANCE

Opus DC Single and Twinfan Units



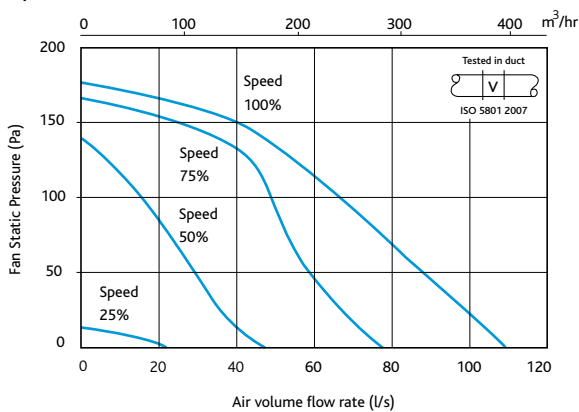
TWIN FANS

OPUS PLUS

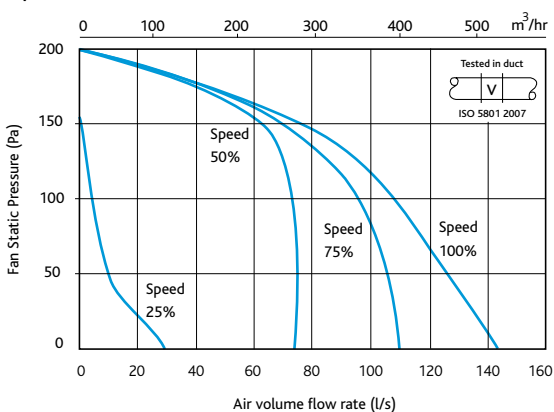


PERFORMANCE

Opus 100 fans



Opus 150 fans



BENEFITS

COMPACT & POWERFUL

Small design, high performance up to 150l/s - ideal for larger room applications.

CONTINUOUS VENTILATION

Twin fans allow for automatic changeover to stand by fan in event of fan failure. They also feature auto duty share.

VERY QUIET OPERATION

Acoustically treated case and 'on board' speed control offers high performance with low noise levels.

SIMPLE COMMISSIONING

Integrated speed control enabling maximum fan speed is easily adjusted between 50% and 100%.

INCREASED LIFECYCLE

Fans automatically change over to standby every 12 hours of run time, increasing units overall lifecycle. (Only twin fan models).

LOW MAINTENANCE COST

Easy clean filters protect motor and fan assembly, reducing maintenance costs and extending fan life.

HEALTHY ATMOSPHERE

Minimum fan speed can easily be adjusted between 0% and 50% for continuous background ventilation without wasting motor power. Enabling background ventilation to be provided without unnecessary controls.

CONTROLLABILITY

A choice of 'on-board' and 'remote' control options are available.

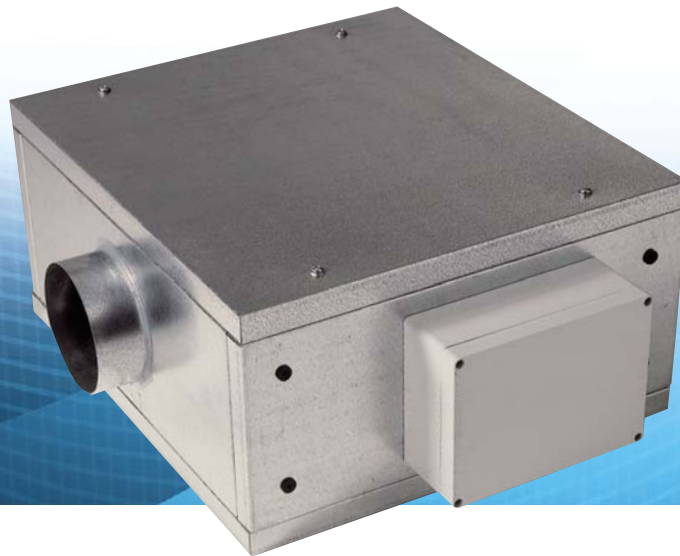
SPEED CONTROL INCLUDED

All units has speed control included as standard to provide a packaged solution.

1 YEAR WARRANTY

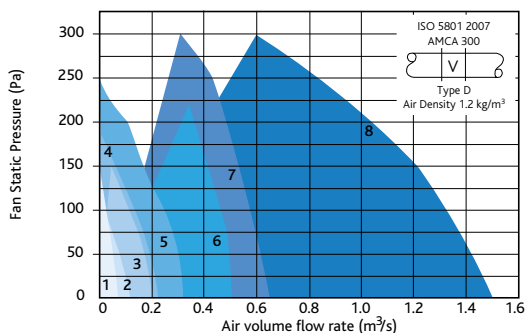
TWIN FANS

NALTF DIRECT & BELT DRIVE INTERNAL DUCTED FANS

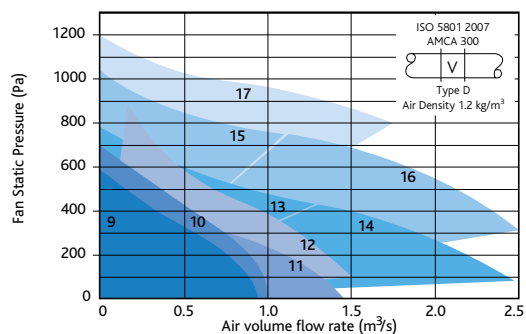


PERFORMANCE

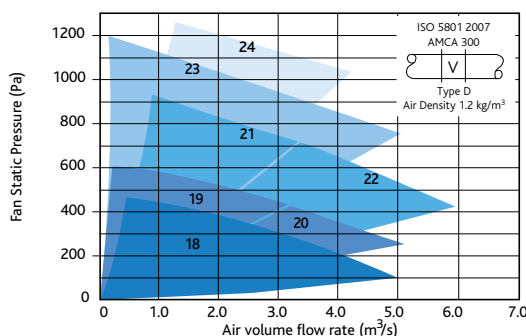
NALTF Direct Drive Units 1 - 8 for internal use



NALTF Belt Drive Units 9 - 17 for internal use



NALTF Belt Drive Units 18 - 24 for internal use



BENEFITS

The Direct Drive NALTF duct mounted twin fan range for internal use consists of 8 sizes with duties up to 1.53m³/s.

HIGH EFFICIENCY

Forward curved centrifugal impeller.

LONG LIFE

Case manufactured from galvanised steel.

SENSORS FITTED

In each scroll monitor air flow.

DIRECT DRIVE MOTORS

Fitted with thermal protection and manufactured to BS5000. Class B insulation and sealed for life bearings.

REMOTE FAIL INDICATOR

For ease of maintenance.

TOP ACCESS PANEL

For ease of maintenance.

2 DUCTWORK CONNECTIONS

Suits popular duct sizes.

EASY TO INSTALL

Live, neutral and earth connections.

INTEGRAL AUTOCHANGER/DUTY SHARE

The Nuair NALTF Belt Drive twin fan range for internal use consists of 16 sizes with duties up to 1.40m³/s.

HIGH EFFICIENCY

Forward curved centrifugal impeller.

LONG LIFE

Case manufactured in aluzinc.

BELT DRIVE MOTORS

Manufactured to BS5000 fitted with air flow fail monitors up to size 15. Suitable for operation in ambient temperatures up to 60°C.

NO NEED FOR SEPARATE CONTROL PANEL

Fans incorporate integral duty share up to size 15.

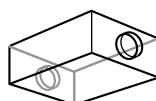
WIDE CHOICE OF ANCILLARIES

Silencers, AV's, controls and ducting.

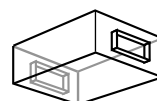
1 YEAR WARRANTY

CONFIGURATIONS

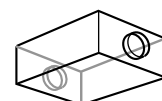
Circular duct connections



Rectangular duct connections



Circular spigot to spigot connections



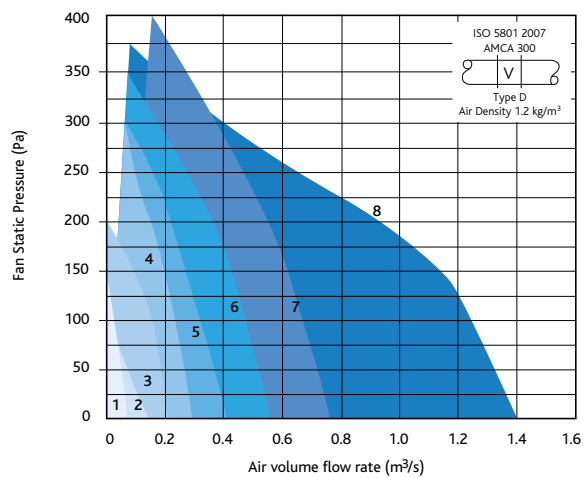
TWIN FANS

NALTRF DIRECT & BELT DRIVE INTERNAL & EXTERNAL FANS



PERFORMANCE

NALTRF Direct Drive Units 1-8



BENEFITS

The Direct Drive NALTRF duct mounted twin fan range for external roof mounting consists of 8 sizes with 3 case configurations and duties up to 1.53m³/s.

HIGH EFFICIENCY

Forward curved centrifugal impeller.

LONG LIFE

Case manufactured from aluzinc.

DIRECT DRIVE MOTORS

Fitted with thermal protection and manufactured to BS5000. Class B insulation and sealed for life bearings.

REMOTE FAIL INDICATOR

For ease of maintenance.

TOP ACCESS PANEL

For ease of maintenance.

2 DUCTWORK CONNECTIONS

Suits popular duct sizes.

EASY TO INSTALL

Live, neutral and earth connections.

INTEGRAL AUTOCHANGER/DUTY SHARE

No need for a separate control panel.

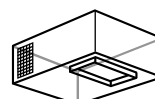
WIDE CHOICE OF ANCILLARIES

Silencers, AV's, controls and ducting.

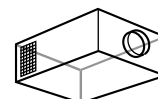
1 YEAR WARRANTY

CONFIGURATIONS

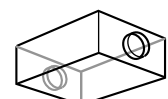
Rectangular bottom spigot



Back to grille



Circular spigot to spigot connections



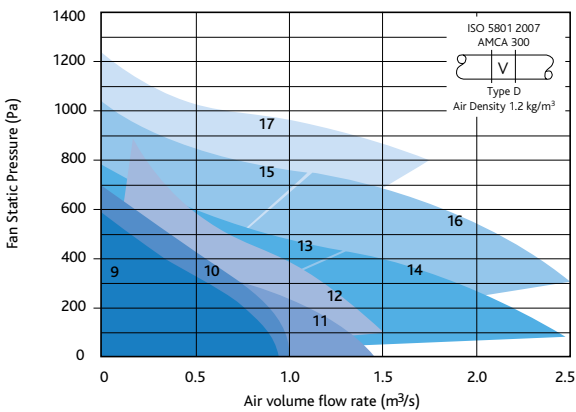
TWIN FANS

NALTRF DIRECT & BELT DRIVE INTERNAL & EXTERNAL FANS

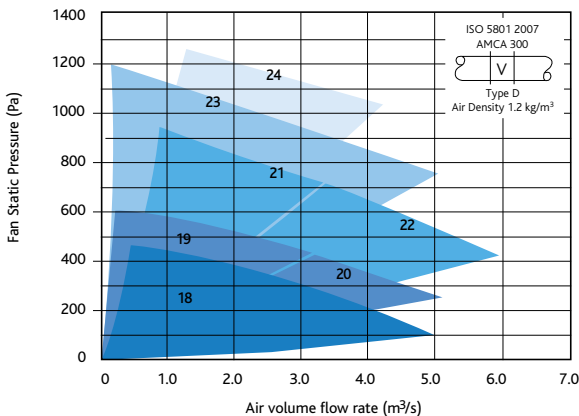


PERFORMANCE

NALTRF Belt Drive Units 9 - 17



NALTRF Belt Drive Units 18 - 24



BENEFITS

The Nuair NALTRF Belt Drive twin fan range for external roof mounting consists of 16 sizes with duties up to 1.53m³/s.

HIGH EFFICIENCY

Forward curved centrifugal impeller.

LONG LIFE

Case manufactured from aluzinc.

BELT DRIVE MOTORS

Manufactured to BS5000 fitted with air flow fail monitors up to size 15. Suitable for operation in ambient temperatures up to 60°C.

RUN AND STANDBY

For peace of mind.

REMOTE FAIL INDICATOR

For ease of maintenance.

TOP ACCESS PANEL

For ease of maintenance.

2 DUCTWORK CONNECTIONS

Suits popular duct sizes.

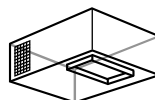
INTEGRAL AUTOCHANGER/DUTY SHARE

No need for a separate control panel.

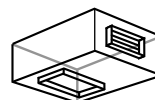
1 YEAR WARRANTY

CONFIGURATIONS

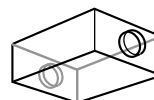
Rectangular bottom spigot



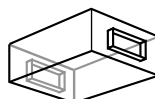
Rectangular bottom spigot



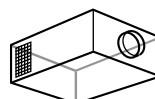
Spigot to spigot connections



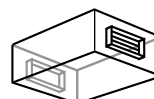
Spigot to spigot connections



Back to grille

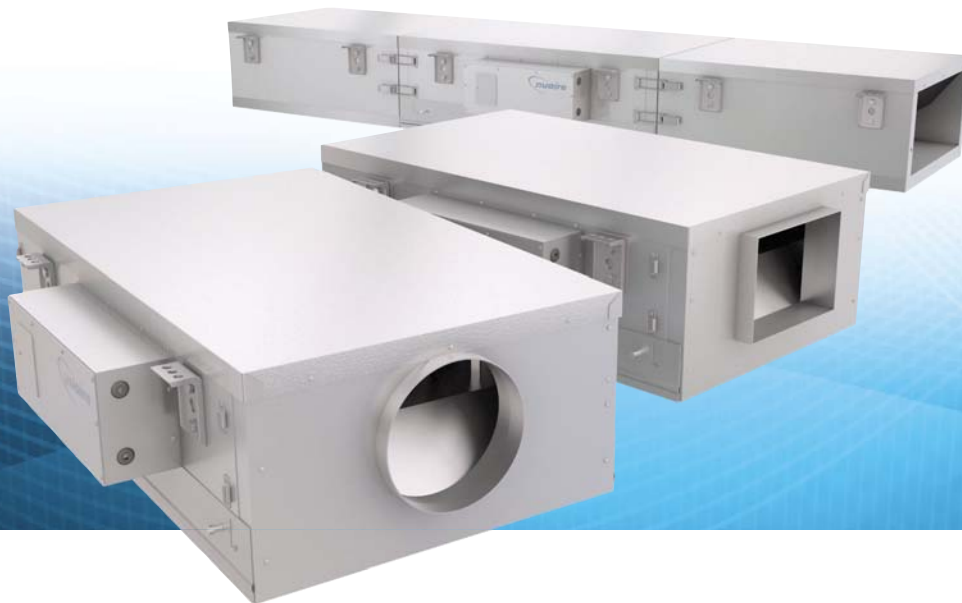


Back to grille



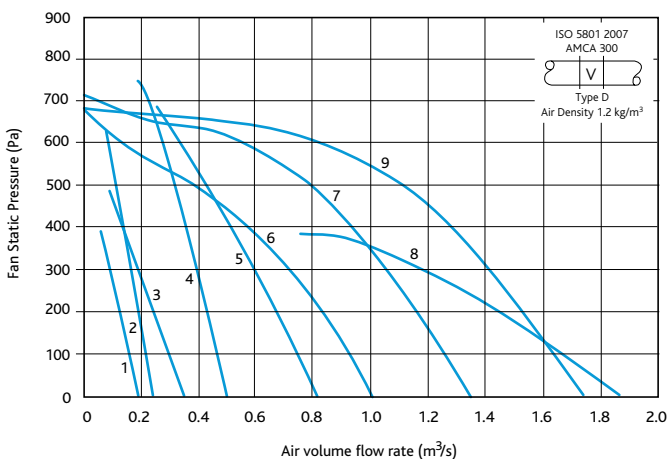
TWIN FANS

AIRE-VOLVE



PERFORMANCE

AIRE-VOLVE AVT 1 - 9



BENEFITS

LATEST EC MOTOR TECHNOLOGY
Guarantees longer life and lower SFPs.

BUILT IN ECOSMART CONTROLS
Energy efficient demand control ventilation solution.

CONSTANT PRESSURE OPTION
Improves the energy performance of the overall building and guarantees lower energy costs for end users.

MEETS CURRENT LEGISLATION AND BUILDING REGULATIONS
Lower energy consumption and better SBEM score.

DOUBLE WALLED PANEL WITH 35MM ACOUSTIC LINING
Ensures lowest breakout.

MANUFACTURED FROM CORROSION RESISTANT ALUZINC
Longer life expectancy than other materials.

FULLY ENCLOSED FAN SPIGOT
Fan and matching silencer system reduces breakout and guarantees a superior acoustic solution.

INNOVATIVE NEW FAN DESIGN
In-line fan assembly provides optimum performance in a minimum space.

12 HOUR AUTO CHANGEOVER
Guarantees ventilation 24/7 in event of fan/motor failure and extends life of fan.

ECOSMART PRE-PROGRAMMED SOFT START FUNCTION
Helps prevent electrical overloading and minimises mechanical wear.

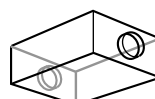
ALL UNITS ARE DESIGNED AND MANUFACTURED WITH PROCEDURES AS DEFINED IN BS EN ISO 9001 2000
Quality and reliability guaranteed.

SUPPLY & EXTRACT
Supply unit can be interlinked with a twin fan to provide a controllable cost effective solution.

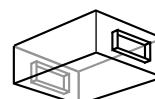
1 YEAR WARRANTY

CONFIGURATIONS

Circular duct connections

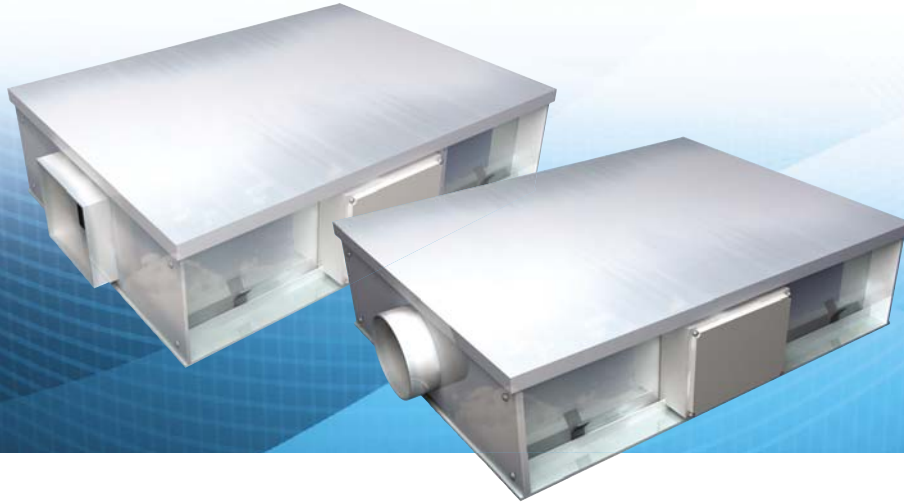


Rectangular duct connections



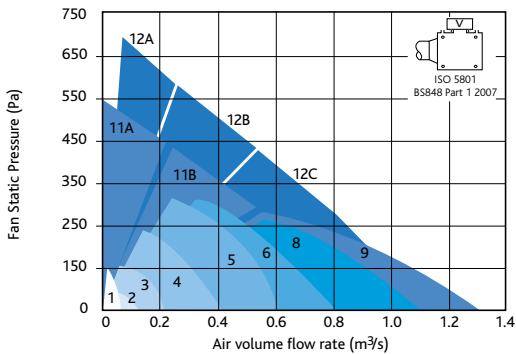
TWIN FANS

QUIETSCROLL INTERNAL ECOSMART FANS

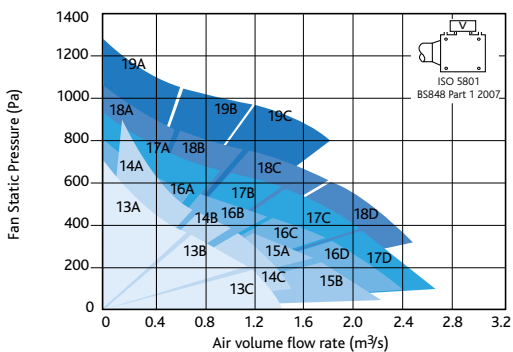


PERFORMANCE

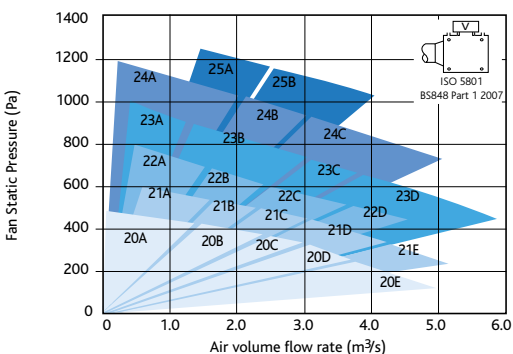
Quietscroll Internal Units 1-9 and 11A-12C



Quietscroll Internal Units 13A-19C



Quietscroll Internal Units 20A-25B



BENEFITS

QUIETEST FANS

As the innovator and market leader of twin fans, Nuairé's experience and expertise has ensured the quietest twin fans in the industry.

SUPPLY AND EXTRACT

A Nuairé supply unit can be interlinked with a twin fan to provide a cost effective controllable solution to your system requirements – both fans responding to a single or multiple sensors/controls.

PURE DEMAND VENTILATION

Only ventilates the room when required - maximum energy savings possible achieved.

HEALTHY ATMOSPHERE

Ecosmart has a "trickle function" as standard which when activated enables you to set a background ventilation rate, keeping the rooms fresh whilst still saving energy.

GUARANTEED VENTILATION

Uses Hall effect sensor for autochange. Automatic change over in the event of fan/motor failure, guaranteeing ventilation 24/7.

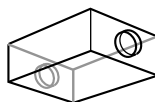
EASY MAINTENANCE

Direct Drive (EST 1-9) models have bottom access as standard.

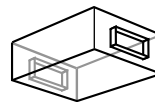
1 YEAR WARRANTY

CONFIGURATION INTERNAL FANS

Circular duct connections



Rectangular duct connections



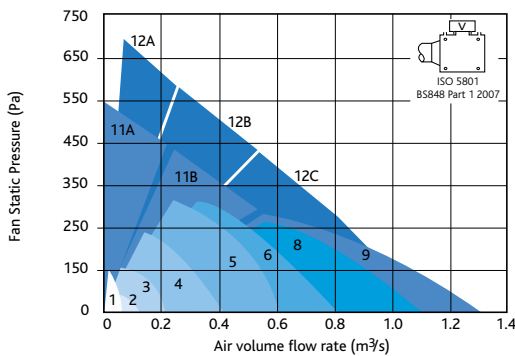
TWIN FANS

QUIETSCROLL EXTERNAL ECOSMART FANS

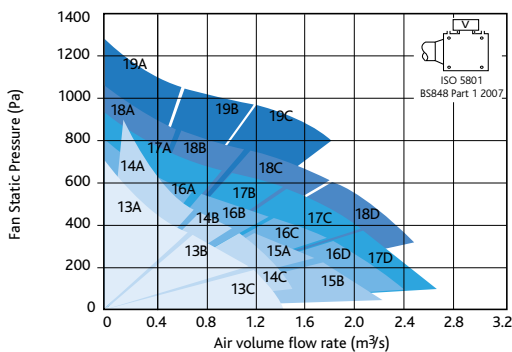


PERFORMANCE

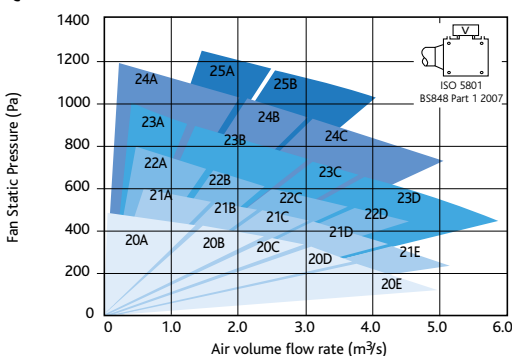
Quietscroll External Units 1-9 and 11A-12C



Quietscroll External Units 13A-19C



Quietscroll External Units 20A-25B



BENEFITS CONT.

SIMPLE TO INSTALL AND COMMISSION

All controls pre-assembled and installed – site time kept to a minimum. Integrated simple to adjust speed control – no need for main balancing damper which can waste energy and generate noise.

Note: The control box on sizes EST 1-9 can be moved to the opposite side of the twin fan.

IMPROVED LIFECYCLE

Auto duty share every 12 hours ensuring maximum life from fans.

PLUG-IN CONTROLS

All sensors and controls (a maximum of 32) are complete with 10m lengths of low voltage pre-plugged cable, (extra lengths available).

INTEGRATED SILENCER

The unique integrated silencer (direct drive models) means that your in-duct acoustic requirements may be reduced and subsequently save you space on site. Contact Nuair for details.

NO SYSTEM OVERLOADS

Ecosmart is pre-programmed with a soft start function which prevents electrical overloading and minimises mechanical wear.

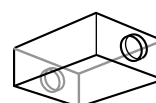
BMS INTERFACE

Integrated BMS features enable any central system to monitor the fan/air handling unit.

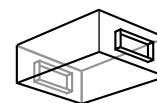
1 YEAR WARRANTY

CONFIGURATIONS EXTERNAL FANS

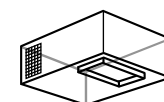
Circular duct connections



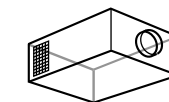
Rectangular duct connections



Rectangular bottom connection

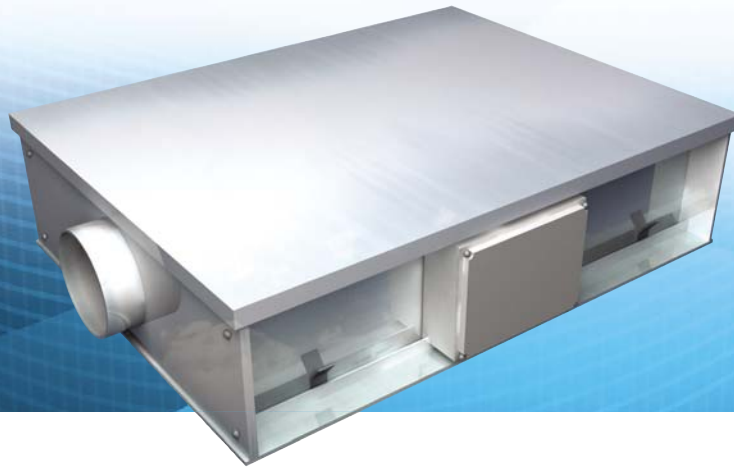


Back to grille connections



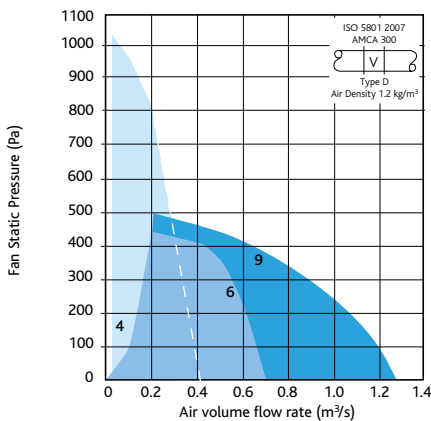
TWIN FANS

CONSTANT PRESSURE/CVD DAMPERS

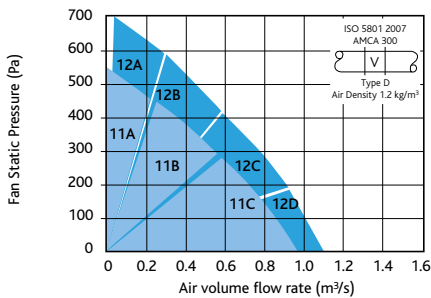


PERFORMANCE

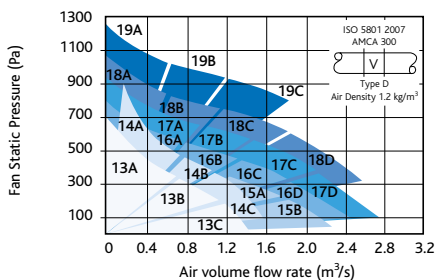
ESTCP Twin fans 4 - 9



ESTCP Twin fans 11A - 12D



ESTCP Twin fans 13A - 19C



BENEFITS

PRECISE VENTILATION

The only multi-room ventilation system to provide local "on demand" control.

GUARANTEED VENTILATION

Automatic change over in the event of fan/motor failure, guaranteeing ventilation 24/7.

QUIET OPERATION

Does not generate noise by throttling back on balancing dampers required in conventional systems.

TRUE DEMAND VENTILATION

Only the areas requiring ventilation receive ventilation.

SAVES ENERGY

Up to 70% saving over conventionally controlled central systems.

- Not needlessly extracting conditioned air.
- Fan speed/motor power dictated by demand requirement.

UNIQUE DIRECT ACTING MULTI-POSITION DAMPER/GRILLE

Ensures operation only when room occupied with integrated PIR.

PRE-WIRED

All components assembled, wired and tested at the Nuairé manufacturing facility. Simply plug and go, No wiring required between fan and dampers.

ENHANCED CAPITAL ALLOWANCE COMPLIANT

Immediate benefits to your client.

INTEGRATED SILENCER

Sizes 6 and 9.

DUCT MOUNTED VERSION OF DAMPER

For unobtrusive flexibility.

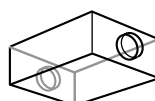
TWIN OR SINGLE

Twin or single fan options are available.

1 YEAR WARRANTY

CONFIGURATION INTERNAL FANS

Circular duct connections



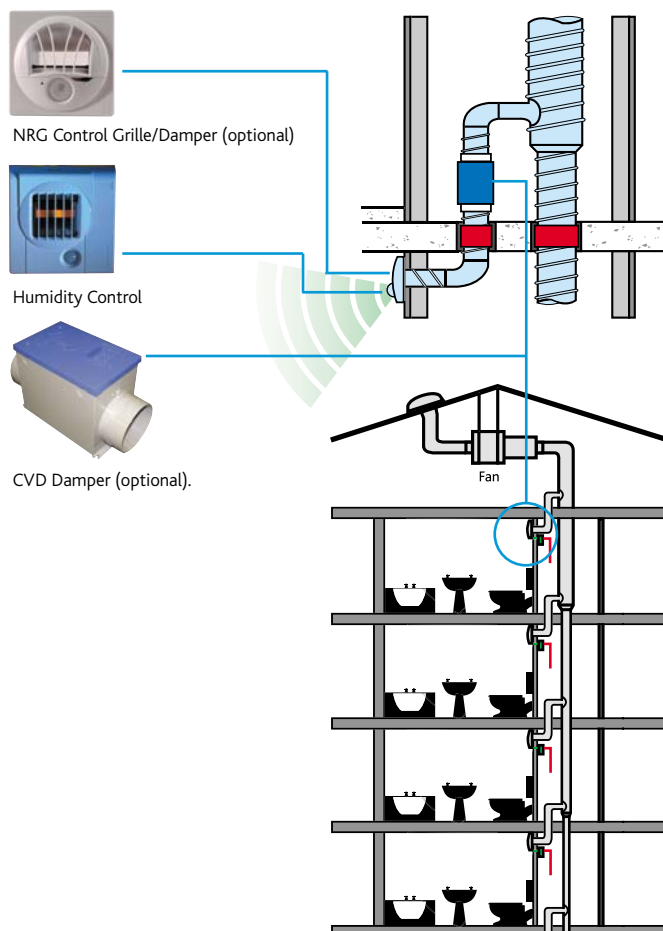
TWIN FANS

CONSTANT PRESSURE/CVD DAMPERS



WHAT IS CONSTANT PRESSURE?

Constant Pressure Variable Volume systems (CPVV) are systems of fans, controls & sensors installed in a multi-room ducted system. The system is intended to provide continuous background ventilation when the served spaces are unoccupied and will automatically increase the ventilation rate when any room is occupied to the design requirements. Only the room requiring the increased ventilation will receive the ventilation.



A CVD DAMPER WITH CONSTANT PRESSURE

The CVD100/125/150/200 dampers use the latest micro-electro-mechanical system (MEMS) sensor technology to give precise measurement and control of flowrate.

The CVD100/125/150/200 dampers will control the flow rate when the pressure drop across the damper is within the range stated in the performance envelope.

Two flow settings are available; trickle and boost. The damper will operate in the trickle setting when it is powered up and will go into the boost setting when a mains signal is received at the SL terminal or when the CVD-PIR (optional ancillary) is activated.

A run-on timer (adjustable between 1 to 60 minutes) will hold the damper in the boost setting for the preset time period.

The application of innovative acoustic design has produced low flowrates at high pressures without the usual associated noise problem. Typical accuracy of the dampers is shown in the table below if the unit is installed in accordance with the Nuair installation and maintenance instructions.

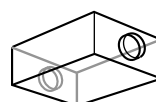
Unit	Typical Accuracy
CVD 100	+ - 2 l/s
CVD 125	+ - 3 l/s
CVD 150	+ - 3 l/s
CVD 200	+ - 4 l/s



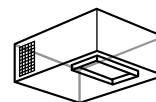
All adjustments can be made without removing the cover.

CONFIGURATIONS EXTERNAL FANS

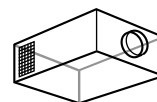
Circular duct connections



Rectangular bottom connection



Back to grille connections



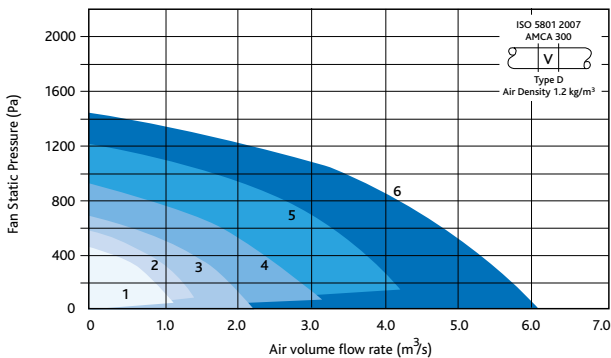
TWIN FANS

TWIN SQUIF FANS

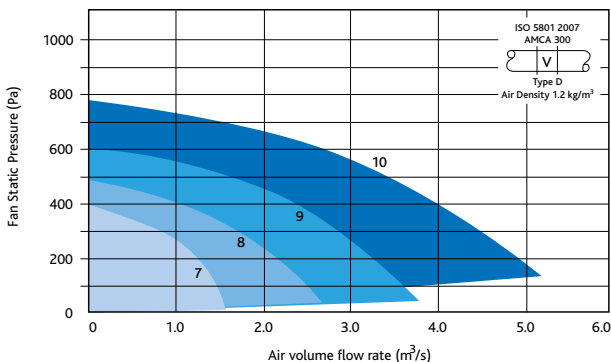


PERFORMANCE

Twin Squif - 4 pole



Twin Squif - 6 pole



BENEFITS

QUIET AND POWERFUL SOLUTIONS

High performance centrifugal motor/impeller combination providing a low noise solution. The units should be suitable for operation in airstream temperatures up to 90°C.

CLEANER

'Out of air stream' motors are ideal for dirty extract and greasy environments. Cleaner motor improves cooling and extends motor life.

EASY MAINTENANCE

'Out of air stream' motors allow for quick and easy access. Inspection hatches allow the internal parts to be easily checked and cleaned.

IDEAL FOR HIGH RESISTANCES

High efficiency centrifugal impellers provide high pressure development suitable for ducted systems and kitchen canopy with extreme filtration.

PREVENTS INTERNAL RECIRCULATION

Backdraft dampers inbuilt.

FLEXIBLE SOLUTION

Can be mounted internally, externally, vertically or horizontally. Mounting facilities included.

FAILURE DETECTION

Inverter detects fan failure and Ecosmart control sends signal to 2nd fan.

CONTROLLABILITY AS STANDARD

All 3 phase units have the flexibility to be speed controlled utilising Nuair Ecosmart controls or frequency inverters.

ECOSMART AUTO CHANGE OVER AND DUTY SHARE

Ecosmart models have auto change over in the event of fan/motor failure along with integral duty share.

FAN TO SUIT ALL APPLICATIONS

2-speed motors available for day to day extract.

1 YEAR WARRANTY

For high temperature single and twin Squif refer to smoke section.

ROOF FAN PRODUCTS

SECTION 5	PAGE
• XS ROOF FANS	66
• NALRF FANS	66
• TERMINATOR ROOF FANS	67
• MARK TEN ROOF FANS	68
• ROOF COWLS/TERMINALS	69 - 70

ROOF FANS

XS ROOF FANS



NALRF HORIZONTAL DISCHARGE ROOF FANS



BENEFITS

MARKET LEADING DESIGN

Wide range to suit most applications including wall, window, roof and ceiling (6, 9 & 12").

QUIETEST OPERATION

Ultra quiet wax thermo actuator, together with market leading motor and impeller technology combine to produce one of the quietest wall fans available.

'MULTI' FAN SPEED CONTROL

Allows up to 5 fans to be connected to one speed control.

HIGH PERFORMANCE

High efficiency impeller and external rotor motor out performs (up to 530l/s / 1908m³/hr) its competitors at much lower noise levels (from 31dBA).

FLEXIBLE SOLUTION

Reversible for extract and input with infinitely variable speed control.

SAVE ENERGY & MONEY

Economy speed setting that will maximise performance at the lowest energy use.

COMPLETE USER SAFETY

Robust construction, manufactured from flame retardant ABS polymer IP44 rated for long life.

EASY REFURBISHMENT

XS refurb kits are quick to install and can be used to replace most existing systems.

FLEXIBLE CONTROLS

A wide range of sensors including PIR, humidity, air quality, run on timer and thermostat can be integral within the unit or mounted separately.

EASY TO SPECIFY AND ORDER

Fans are supplied complete with kit ensuring no missing components on-site.

1 YEAR WARRANTY

BENEFITS

UV STABILISED GRP COWL

Robust and durable on-site.

BUILT-IN BIRD GUARD

No additional cost.

SPEED CONTROLLABLE

Easy to install.

SIMPLE WIRING

Easy to install.

SEVEN MODELS

Plus a wide choice of ancillaries.

SIDE INLET GUARD

Units have an integral side finger guard to BS 848 Part 5.

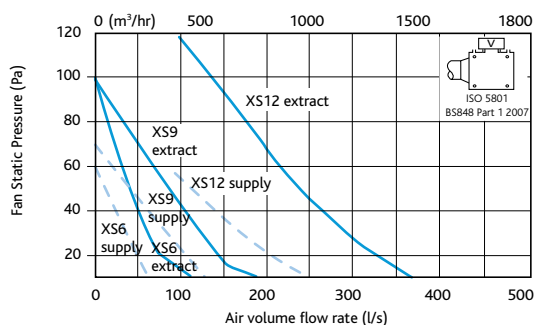
ADDED PROTECTION

Motors incorporate class F insulation and 'Heatseeker' thermal protection.

1 YEAR WARRANTY

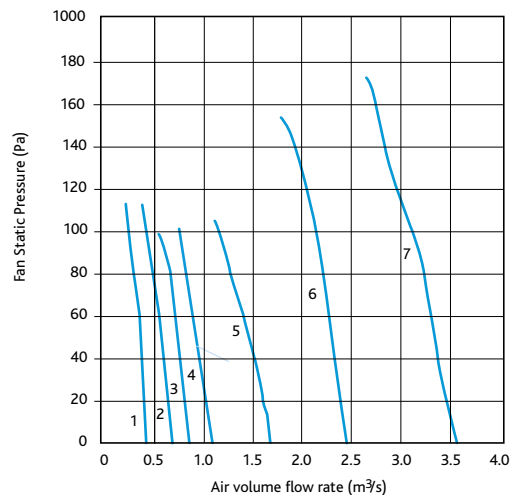
PERFORMANCE

XS 6, 9 and 12 PR/FR Roof Extract Fans. Performance for complete fan kit.



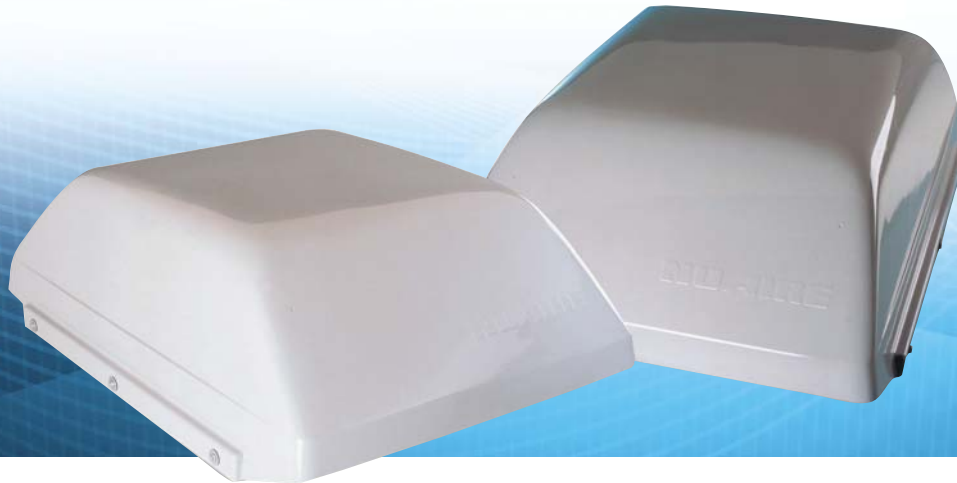
PERFORMANCE

NALRF Horizontal Roof Fan



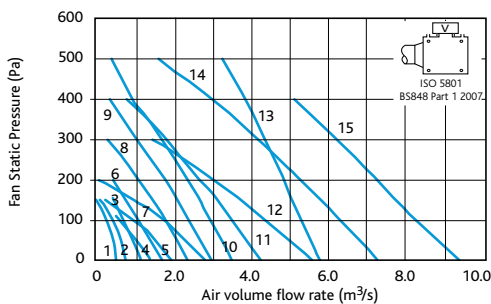
ROOF FANS

TERMINATOR LOW PROFILE ROOF FANS

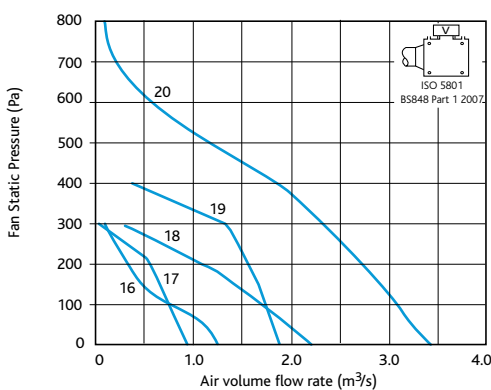


PERFORMANCE

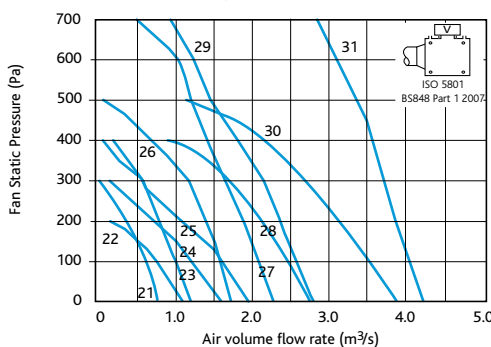
Terminator TRA Axial Flow Units 1 - 15



Terminator TRM Mixed Flow 16 - 20



Terminator TRC Centrifugal 21 - 31



BENEFITS

UNOBTRUSIVE DESIGN

Extremely rigid ultra low profile GRP cowl easily accommodated on all building profiles – cowl is also UV resistant.

ANY ROOF PROFILE

Soaker sheets and flashing plates are available to cater for all roof profiles.

ENERGY EFFICIENT

All 3 phase models are compatible with Ecosmart controls providing the most energy efficient cost effective solution.

QUIETER SYSTEM

Widest range of impeller types together with matching silencers provide the perfect acoustic solution.

SYSTEM CONTROL

Ecosmart compatibility allows other fans/ AHU's to interface directly with the Terminator. (3 phase only).

AVOIDS HEAT LOSS

Integrated backdraught shutters, limits heat loss from building when unit is off. Motorised dampers are optional.

FLEXIBLE INSTALLATION

The cowl can be wall mounted vertically for exposed weather location.

PERFORMANCE OPTIONS

Axial, mixed flow or centrifugal impeller options cater for all your systems particular pressure and sound requirements.

COLOUR MATCH

Standard cowl colour is goose wing grey (BS 00A05), (although any BS or RAL colour can be supplied).

ANCILLARIES

Full range of attenuators, mounting curbs, wall plates, etc. are available to complete your installation.

1 YEAR WARRANTY

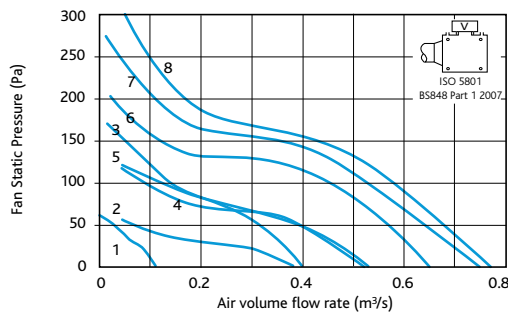
ROOF FANS

MARK TEN ROOF FANS

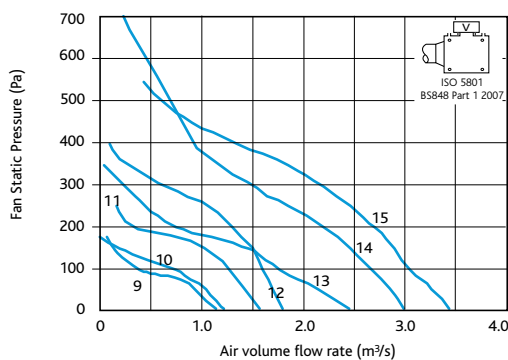


PERFORMANCE

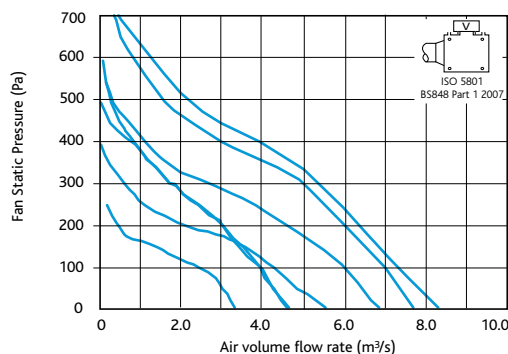
Mark Ten Roof Extract Units 1-8



Mark Ten Roof Extract Units 9-15



Mark Ten Roof Extract Units 16-22



BENEFITS

UNOBTRUSIVE DESIGN

Extremely rigid low profile Aluminium manufacture easily accommodated on all building profiles.

EFFECTIVE FUME REMOVAL

High efficiency vertical discharge guarantees that fumes are quickly and efficiently removed from source.

ENERGY EFFICIENT

All 3 phase models are compatible with Ecosmart controls providing the most energy efficient and cost effective solution.

QUIETEST SYSTEM

Low noise, high performance mixed flow impeller together with matching silencers provide the perfect acoustic solution.

SYSTEM CONTROL

Ecosmart compatibility allows other fans/AHU's to interface directly with the Mark Ten.

AVOID HEAT LOSS

Integrated backdraught shutters, retained by magnetic latches, limits heat loss from the building when unit is off.

MAINTAINABILITY

Removable panels on sides and top allows for quick and effective maintenance.

PERFORMANCE OPTIONS

High performance mixed flow impeller with direct or belt drive options cater for all your systems pressure and sound requirements.

GUARANTEED VENTILATION

Standby motor option on belt drive version ensures ventilation in the event of fan failure.

Note: standby motor is unbelted.

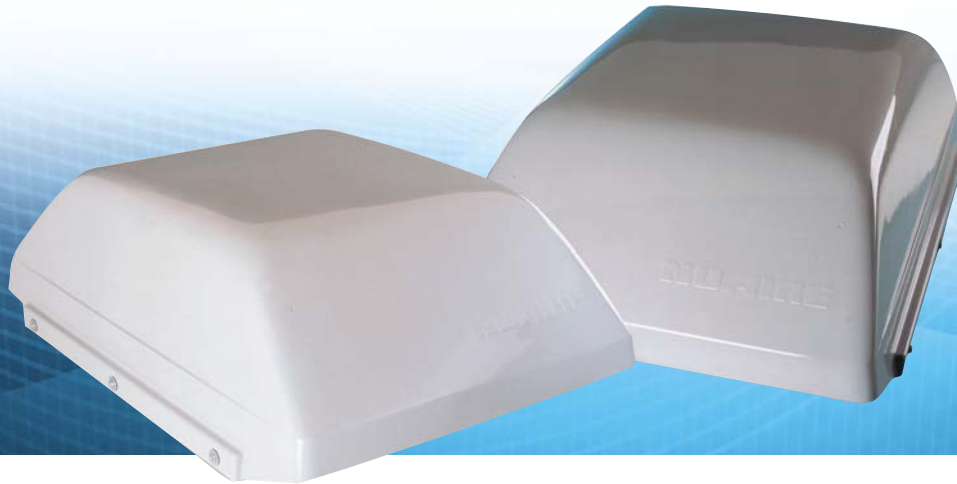
ANCILLARIES

Full range of attenuators, mounting curbs, etc are available to complete your installation.

1 YEAR WARRANTY

ROOF FANS

ROOF COWLS/TERMINALS



TERMINATOR COWLS DIMENSIONS (mm)

To provide a weatherproof route for supply & exhaust air to your ducted system.

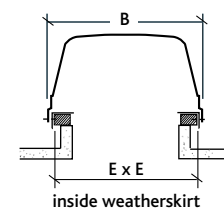
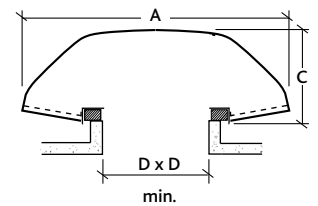
Cowls are manufactured from flame retardant polymer and can be supplied with gravity backdraught shutters, bird guards and hand guards. The terminal is finished in BS00A05 Grey as standard. All BS or RAL colours are available. The cowl will normally be fitted to the upstand by a roofing contractor or builder. The Cowl can be fitted without shutters on a 0-60 degree pitched roof with its longer side running down the roof slope. The Cowl can be fitted with its longer side running across a slope of less than 85 degrees from the horizontal. When fitted to a wall the longer side must run horizontal.

Typical code: TRTS-A Note: S = Shutters

Note: Air Pressure Drop of Cowl (Pa) = $Z \times Q^2$

where Z = Factor listed in table below Q = Air Volume Flow Rate (m³/s)

Code	A	B	C	D	E	Weight Kg	Z Extract	Z Intake
TRTS-A	900	620	340	460	600	16.3	67	118
TRTS-B	1080	740	375	560	695	20.7	39	87
TRTS-C	1320	964	475	700	945	34.4	28	62
TRTS-D	1470	1076	490	800	1050	39.2	19	32
TRTS-E	1780	1170	485	900	1136	66.8	7	11.3
TRTS-F	2260	1476	600	1200	1452	114	2.5	3.6



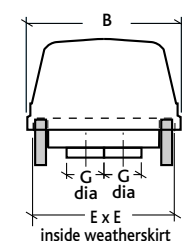
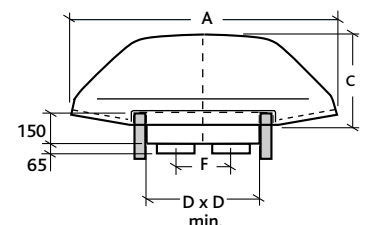
SUPPLY/EXTRACT COWLS DIMENSIONS (mm)

Supply/Extract Cowl: rigid flame retardant cowl, conforming with BS476 (Part 1 class 11) supplied in grey (BS 00 A 05) as standard (any BS or RAL colours available), fixing directly to the base using non-rusting sealed fixings. Air plenum is manufactured from galvanised steel incorporating supply & extract chambers. Rigid spigots are provided for connection of duct work. Supply & extract chamber is fitted with a bird guard.

Typical code: TRSE1

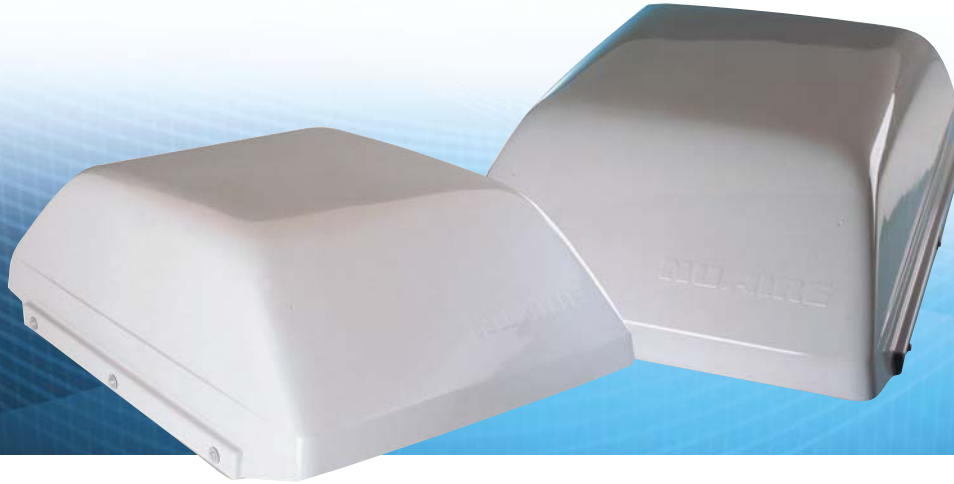
Code	A	B	C	D	E	F	G	Weight Kg
TRSE1	900	620	340	460	600	200	100	21.3
TRSE2	900	620	340	460	600	200	125	21.3
TRSE3	900	620	340	460	600	200	150	21.3
TRSE4	1320	964	475	700	945	345	200	41.4
TRSE5	1320	964	475	700	945	345	250	41.4
TRSE6	1320	964	475	700	945	345	315	41.4
TRSE7	1780	1170	489	900	1150	450	400	76.8

Resistance to airflow of this item is negligible.



ROOF FANS

ROOF COWLS/TERMINALS CONT.



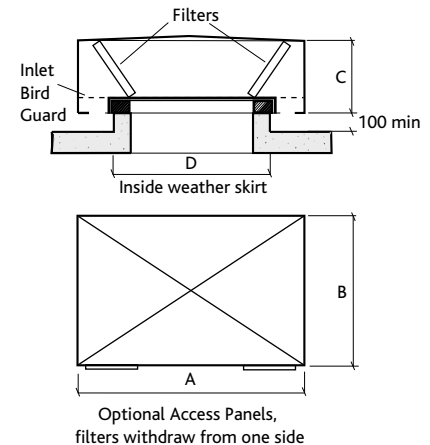
FILTERED TERMINALS DIMENSIONS (mm)

Low profile terminals are to be supplied by Nuair. The terminal is to be rectangular, constructed in aluminium alloy and with non-rusting fixings. Twin inlets fitted with inlet/bird guards and an integral weather skirt. Filtered units are to be fitted with filter frames for removal and replacement of BS2831 and BS2963 filters.

Typical code: 630LPDT/1 - Disposable Filter. 630LPWT/1 - Washable Filter.

Code	A	B	C	D	Weight Kg	Z Extract	Z Intake
630LP*T/1	1250	700	280	690	15.1	67	106
800LP*T/1	1390	800	350	790	25.2	51	88
1400LP*T/1	2620	1800	600	1440	91.0	3.3	6.5

Note: * D = Disposable * W= Washable



NON-FILTERED TERMINALS (mm)

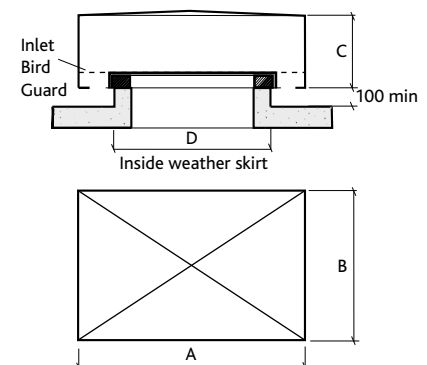
Low profile terminals are to be supplied by Nuair. The terminal is to be rectangular, constructed in aluminium alloy and with non-rusting fixings. Twin inlets fitted with inlet/bird guards and an integral weather skirt.

Typical code: 315LPT/1

Note: Air Pressure Drop of Attenuator (Pa) = $Z \times Q^2$

where: Z = Factor listed in table below Q = Air Volume Flow Rate (m³/s)

Code	A	B	C	D	Weight Kg	Z Extract	Z Intake
315LPT/1	615	400	150	390	3.5	553	614
400LPT/1	745	500	165	490	5.8	222	296
500LPT/1	915	600	200	590	8.1	105	117
630LPT/1	1350	700	280	690	12.6	48	29
800LPT/1	1390	800	350	790	23.5	32	21
1000LPT/1	1820	1050	420	1040	29.8	13	10
1120LPT/1	2070	1150	500	1140	35.0	6.5	4.6
1250LPT/1	2204	1250	540	1240	41.0	5	4
1400LPT/1	2620	1800	600	1440	65.0	1	1



AIR HANDLING (AHU'S) PRODUCTS

SECTION 6	PAGE
• NUAIRE'S PROVEN TRACK RECORD	72
• ECOSMART SQRBO EXTRACT OR SUPPLY	74
• OPUSXBOX LOW DEPTH HEAT RECOVERY	74
• ECOSMART BOXER (1 - 7) PRE-PACKAGED CONFIGURATIONS	75
• XBOXER HORIZONTAL & STACKED HEAT EXCHANGER UNITS	76
• XBOXER TWIN FAN HORIZONTAL & STACKED HEAT EXCHANGER UNITS	77
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NUAIRE'S PROVEN TRACK RECORD

COMPLETE SOLUTIONS

■ INTERFACING WITH THE CUSTOMER'S EQUIPMENT, INTERFACING WITH THE CUSTOMER



At Nuaire, we pride ourselves on working closely with our customer at every stage of the development process, while the latest manufacturing technology and accredited test facilities enable us to offer a flexible approach to the design and build of the right fan solution.

We don't believe in focussing solely on the ventilation system. A key aspect of Nuaire's approach consists of the way we interface with our customer's equipment and manufacturing process leading, in the majority of cases, to a significant reduction in assembly costs. With this approach we achieve great results and the satisfaction of our customers. The following examples demonstrate not just how we approach things but some of the results we achieve.

■ PUTTING CUSTOM SOLUTIONS INTO CIRCULATION: THE MOST FLEXIBLE AHU RANGE ON THE MARKET TODAY

The XBOXER range offers a solution for every conceivable application and environment, whether inside a plant room or on a roof. There are XBOXER solutions for applications in industrial premises and public buildings as well as domestic dwellings, schools, offices, shops and hospitals.

■ QUALITY FEATURES: ALL THE INS AND OUTS

At Nuaire, quality is the key component of all our products, whatever the application:

- Suitable for all installations, internally and externally
- A choice of materials
- A choice of heat recovery options (including plate HX, thermal wheel and run-around coil)



MORE THAN JUST FANS

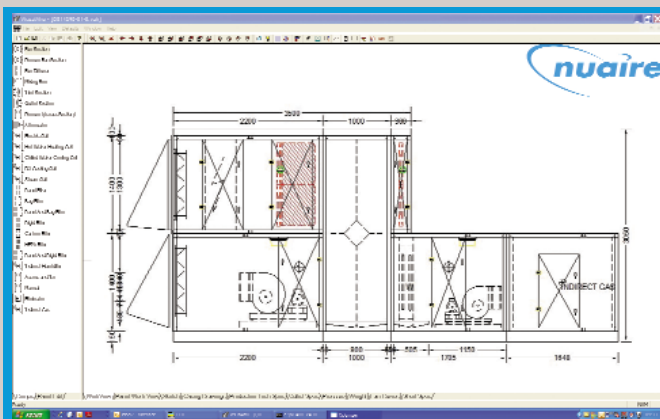
■ INNOVATION IN THE AIR



Nuaire has built a loyal customer base over the years and not just because of the quality of its fans. The fact is, the company also has a long and successful history in heat recovery and has been developing and manufacturing AHUs for many years. In order to ensure quality control and optimum energy conservation, the company manufactures the majority of the components itself.

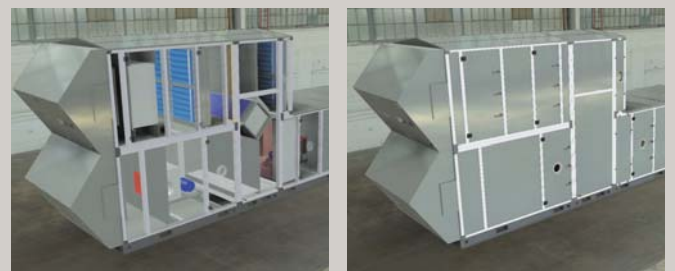
Contemporary AHUs are called upon to meet all conceivable air handling requirements and standards throughout Europe. Every AHU in the Nuaire range meets the requirements laid down by the classification in the CEN standard and is manufactured in a factory that has been certified for its quality control (ISO 9001) and environmental policy (ISO 14001).

■ PUTTING OUR QUALITIES TO THE TEST



The company's rigorous product testing regime is unrivalled in the industry, which is hardly surprising given multi-million pound test facilities considered to be amongst the most modern and comprehensive in the world. It's all designed to ensure that our customers benefit from the best ventilation solutions on the market today. The facilities have been designed to meet the latest industry standards and carry the appropriate approvals including those from the British Standards Institute and the Air Movement and Controls Association.

The two reverberant chambers at the facility (Type D and Type A configurations) test for both aerodynamic and acoustic performance, allowing Nuaire to self-certify products, including those for the French market, as well as ensuring that products meet the high standards consistent with Nuaire's reputation.



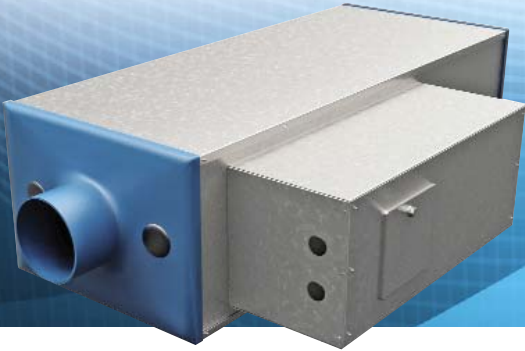
No two AHUs are the same whether you need to satisfy the most budget demanding contract or the most sophisticated, energy conscious, bespoke project the XBOXER range can fulfil your requirements. Nuaire's experienced team can provide technical information and support for any project that requires an AHU.

The team utilise the latest parametric quoting software and can provide quick and accurate estimates. The software also reduces time during specification changes.

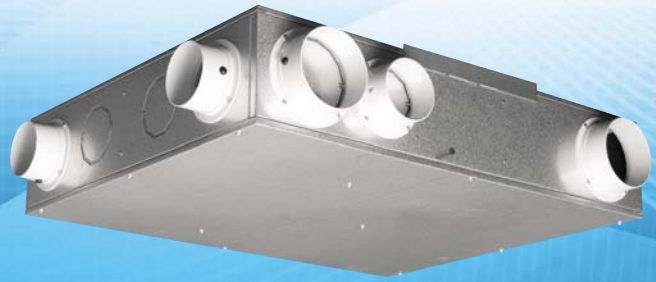
The team comprise of specialist engineers, project managers and technical estimators all highly trained to ensure that your AHU project runs as smoothly as possible from enquiry through to installation.

AIR HANDLING UNITS

ECOSMART SQRUBO - EXTRACT OR SUPPLY UNITS



OPUSXBOX LOW DEPTH HEAT RECOVERY UNIT



BENEFITS

ENERGY EFFICIENT

All models have Ecosmart controls which provide the most energy efficient and cost effective solution.

EXACT VENTILATION

Low voltage plug-in sensors allow the extract rate to be automatically adjusted to suit the room requirement.

COMPACT DESIGN

Low case height makes this unit ideal for restricted ceiling spaces.

QUIETER UNITS

Casing is fully lined to provide high acoustic and thermal insulation.

COST EFFECTIVE

All sensors are safe extra low voltage.

EFFICIENT PACKAGED SOLUTION

Integrated fans and controls package.

SIMPLE COMMISSIONING

On board control pad allows for pre-setting of minimum and maximum fan speeds to suit requirements.

DESIGN FLEXIBILITY

Available in 6 case sizes, supply unit with LPHW or electric heater.

ANCILLARIES

Full range of ancillaries.

1 YEAR WARRANTY

BENEFITS

LOW DEPTH 185MM

The shallowest available, ideal for applications where space is at a premium.

HIGH EFFICIENCY

Heat recovery efficiency in excess of 70% possible, together with low watt D.C. motors.

QUIET, COMPACT & POWERFUL

Low noise levels, compact design and a high performance.

ECOSMART EFFICIENCY

Supplied with Ecosmart control, providing a simple to install, easy to commission, energy efficient solution.

PLUG AND GO

Ecosmart controls and sensors, simply plug directly into the unit – supply and extract then respond to the conditions being monitored.

FLEXIBLE SOLUTION

Supply and extract airflows are easily fine tuned using integral speed adjustment and built in balancing dampers at each spigot.

QUICK INSTALLATION

A single point fixing bracket with anti-vibration strip enables quick and easy installation.

LOW MAINTENANCE COSTS

Heat exchanger block and filters are easily removed from below and cleaned ensuring longer fan life whilst maintaining efficiencies.

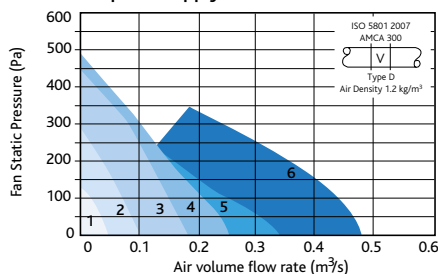
QUIETEST UNIT AVAILABLE

Acoustically lined with advanced impeller technology, ensuring the quietest system possible.

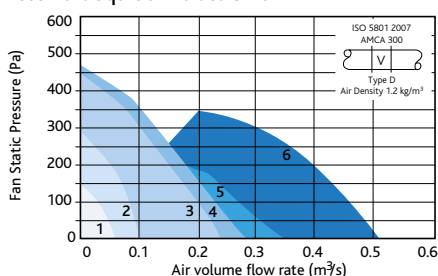
1 YEAR WARRANTY

PERFORMANCE

Ecosmart Sqrubo Supply Unit

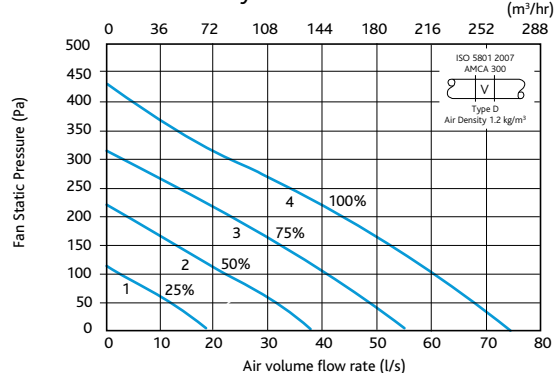


Ecosmart Sqrubo Extract Unit



PERFORMANCE

OPUSXBOX Heat Recovery Unit



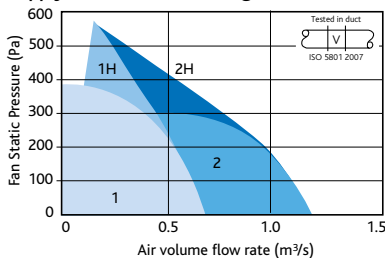
AIR HANDLING UNITS

ECOSMART BOXER (1 - 7) STANDARD PRE-PACKAGED CONFIGURATIONS

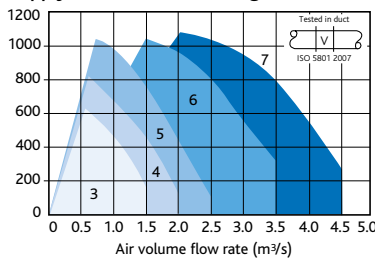


PERFORMANCE

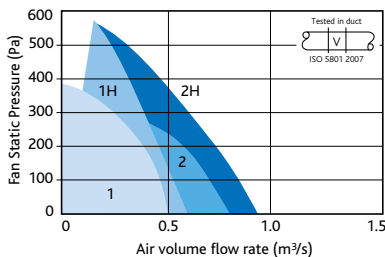
Supply Unit Filter & Heating Coil size 1 & 2



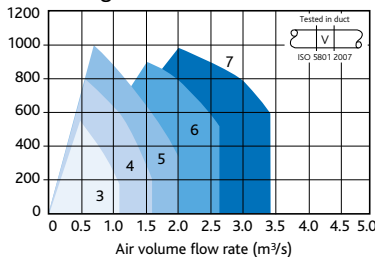
Supply Unit Filter & Heating Coil size 3 - 7



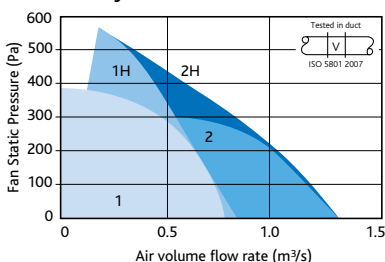
Supply Unit Filter & Heating & Cooling Coil size 1 & 2



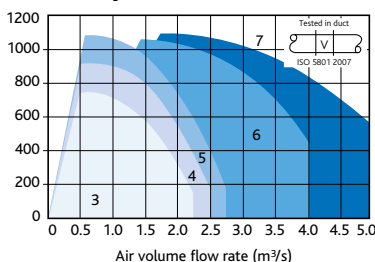
Supply Unit Filter & Heating & Cooling Coil size 3 - 7



Fan Unit only size 1 & 2



Fan Unit only size 3 - 7



BENEFITS

VERY QUIET

25mm double skinned panels provide better acoustic and thermal properties over conventional AHU's.

REDUCE INSTALLATION TIME

All components are pre-assembled, wired and tested at the Nuair manufacturing facility. Units are delivered conveniently in sections for easy site assembly.

SIMPLE PRECISE COMMISSIONING

Minimum and maximum ventilation rates precisely set and limited at AHU requiring no throttling dampers.

ENERGY EFFICIENT

All models have Ecosmart controls built in.

PART L & ENERGY EFFICIENT

Fan impellers selected for optimum efficiency and noise characteristics. Motors are IE2 to BS 5000 direct drive and high efficiency belt drive.

IMPROVED LIFE CYCLE/NO SYSTEM OVERLOADS

Ecosmart is pre-programmed to automatically give a soft start. Prevents electrical overloading and minimises mechanical wear.

LONG LASTING

Each section is manufactured from a highly rigid pentapost framework with heavy gauge Aluzinc, corrosion resistant steel panels.

CONSTANT PRESSURE CONTROL AVAILABLE

Contact Nuair.

COIL OPTIONS

DX & chilled water coils are available, call Nuair for further details.

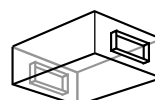
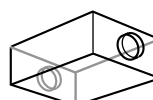
Note: Undressed coils are also available.

1 YEAR WARRANTY

CONFIGURATIONS

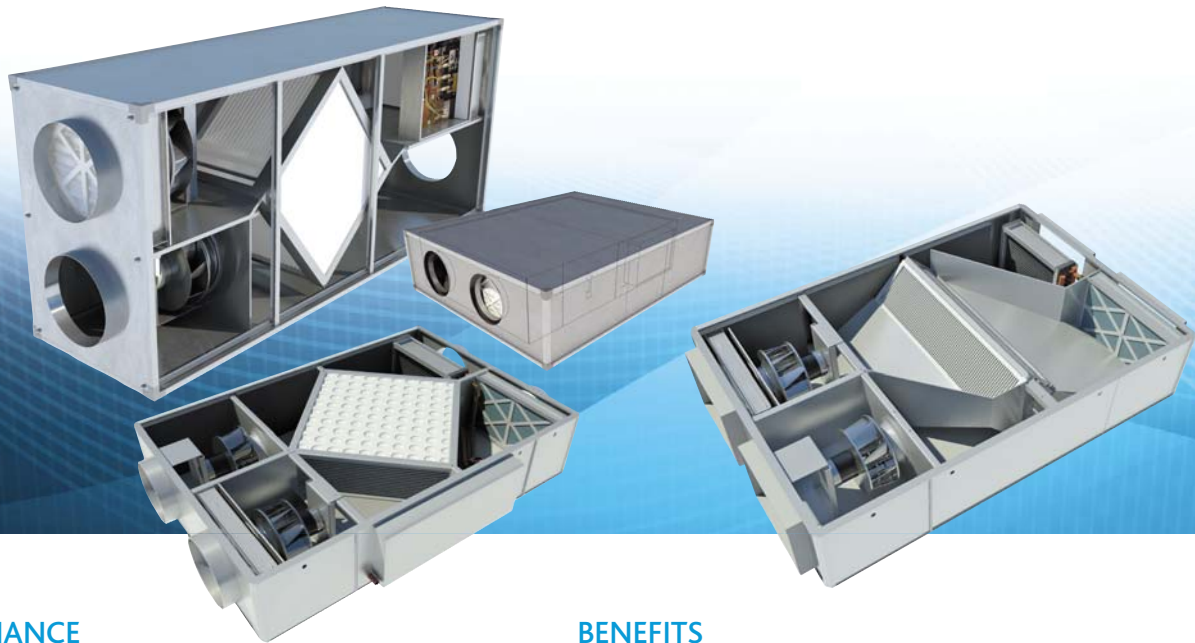
Circular duct connections size 1 & 2

Rectangular duct connections size 3 to 7



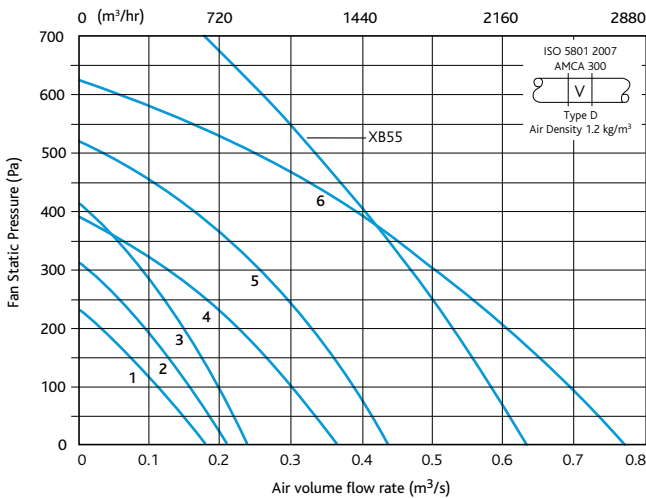
AIR HANDLING UNITS

XBOXER HORIZONTAL & STACKED HEAT EXCHANGER UNITS

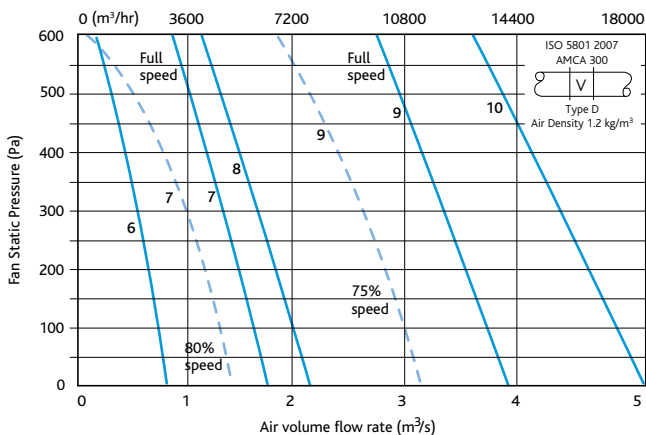


PERFORMANCE

XBOXER Horizontal sizes: XB2-5, XB55 and S1-XB and S6-XB and stacked sizes: S2-5 XBV.



XBOXER Horizontal sizes: S6-10 XBH and stacked sizes: S6-10 XBV.



BENEFITS

HIGH EFFICIENCY

Heat exchanger efficiency of up to 70%, alongside high efficiency motors and backward curved impellers.

ENERGY EFFICIENT CONTROLS

Full Ecosmart control compatibility provides a simple 'plug & go' control solution with BMS interface and trickle and boost as standard.

NO CONTROL OPTION AVAILABLE

Now available on all sizes.

SPACE SAVING SOLUTIONS

Stacked or horizontal units, provide the most effective solution.

QUIETEST SOLUTION

Units are double skinned keeping breakout noise to the lowest possible levels.

Optional acoustic enclosure available.

WIDE RANGE

Horizontal, stacked and twin fan options available up to 5m³/s.

QUICK COMMISSIONING

Integrated supply and extract fan allows precise system duty can be quickly and accurately set. (Ecosmart models only).

EASY INSTALLATION

All XB models (sizes 2 - 6) are supplied in one piece.

XBH and XBV models (sizes 6, 7, 8, 9 & 10) are supplied in 3 sections (unless otherwise specified) for delivery, ready for site assembly.

EASY MAINTENANCE

Left or right hand options (in direction of airflow) – will provide full access to components.

INTEGRATED SUMMER BYPASS

Operates automatically via integrated factory set temperature sensors.

WEATHERPROOF DETAIL

Can be factory or fitted on site.

Note: weather proof enclosure for XB2 - XB5 is supplied as a separate component.

ADVANCED CONDENSATE REMOVAL

Miniature condensate pump option, for applications where the distance to discharge is great. Pump also enables a 'micro bore' type pipe to be used.

FILTER OPTIONS

G4 fitted as standard. Higher grade integrated filters available. Duct mounted ancillary also available.

DX COIL OPTION AVAILABLE

Please contact Nuair.

CONSTANT PRESSURE CONTROL

For further details please contact Nuair.

HEATER BATTERY OPTIONS

Unit with integral battery, LPHW or electric.

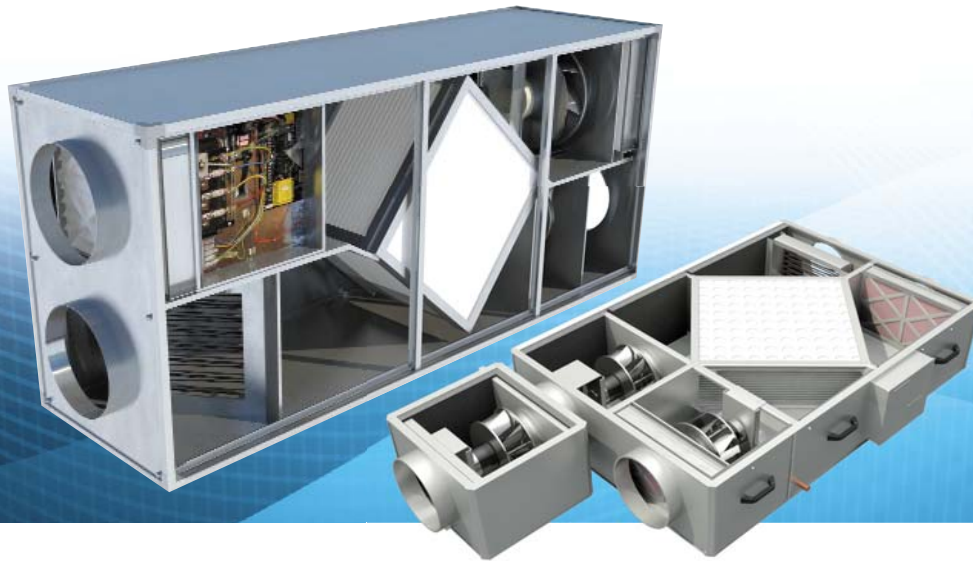
ANCILLARIES

A range of ancillaries are available.

1 YEAR WARRANTY

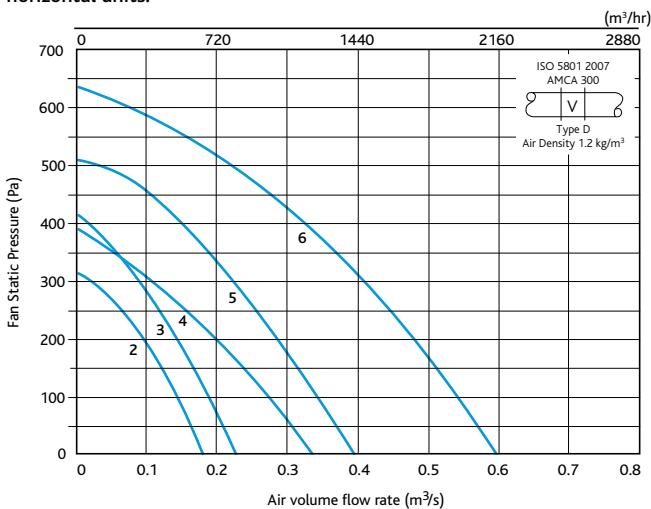
AIR HANDLING UNITS

XBOXER TWIN FAN HORIZONTAL & STACKED HEAT EXCHANGER UNITS

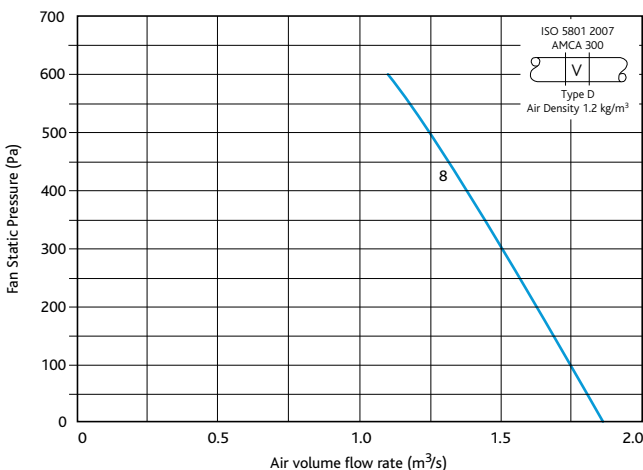


PERFORMANCE

XBOXER Twin fan sizes: S2T-S6T-XBV stacked, XB2-5T and S6T-XB horizontal units.



XBOXER Twin fan sizes: S8T-XBV stacked and S8T-XBH horizontal units.



BENEFITS

HIGH EFFICIENCY

Heat exchanger efficiency of up to 70%, alongside high efficiency motors and backward curved impellers.

ENERGY EFFICIENT CONTROLS

Full Ecosmart control compatibility provides a simple 'plug & go' control solution with BMS interface and trickle and boost as standard.

SPACE SAVING SOLUTION

Stacked option reduces over space requirements and the horizontal units depth from only 340mm deep.

QUIETEST SOLUTION

Units are double skinned keeping breakout noise to the lowest possible levels.

GUARANTEED VENTILATION

Ecosmart units with auto-change over and duty share.

WIDE RANGE

12 options available up to 1.7m³/s.

QUICK COMMISSIONING

Integrated supply and extract fan allows precise system duty can be quickly and accurately set.

EASY INSTALLATION

All XB twin fans are supplied in one piece plus 2nd extract fan. All XBV twin fans are supplied in 3 sections plus extract fan for delivery ready for site assembly.

EASY MAINTENANCE

Left or right hand options (in direction of airflow) – will provide full access to components.

INTEGRATED SUMMER BYPASS

Operates automatically via integrated factory set temperature sensors.

WEATHERPROOF DETAIL

Can be factory or fitted on site.

ADVANCED CONDENSATE REMOVAL

Miniature condensate pump option, for applications where the distance to discharge is great. Pump also enables a 'micro bore' type pipe to be used.

FILTER OPTIONS

G4 fitted as standard. Higher grade integrated filters available or as a duct mounted ancillary.

DX COIL OPTION

Please contact Nuair.

HEATER BATTERY OPTIONS

Unit with integral battery, LPHW or electric.

ANCILLARIES

A range of ancillaries are available including manometers, bulkhead lights, view ports, drain trays & traps.

For further details please contact Nuair.

1 YEAR WARRANTY

MODULAR SUPPLY

MODULAR COMPONENTS WHICH CAN BE ARRANGED IN COMBINATION TO SUPPLY FRESH AIR, RECIRCULATED AIR OR A MIXTURE OF BOTH WITHIN A BUILDING.



Angular Modular Supply system.



Straight Modular Supply system with high velocity discharge.



Aluminium Low Profile Terminal. (Available with filters).



GRP Low Profile Terminal.

Choice of modules

Modules are mainly of aluminium alloy and externally flanged for connection together.

Vertical or horizontal arrangements

The units can be arranged vertically or horizontally and include mixed flow fans, heaters, filters, silencers, discharge heads, inlet bend, extensions and recirculation sections.

Compatible ancillaries

Louved wall terminals, prefabricated curbs and soaker sheets are available.

Air heated or filtered

Heaters can be electric, hot water or steam types. Recirculation modules can be operated directly, by cord, electrically or pneumatically.

Compatible roof terminals

Roof terminals can be filtered or unfiltered. Filter packs may be of a washable or disposable type. This also applies to those fitted into filter modules.

High performance

High performance mixed flow impeller.

DOMESTIC RESIDENTIAL EXTRACT PRODUCTS

SECTION 7	PAGE
• SLIMAIRE SINGLE & TWIN FANS	80
• NGKF-FL & WL FANS	80
• GENIE FANS	81
• OPUS 40 / 60 / 95 FANS	82
• XS FANS	83
• COOKERHOOD FANS	84
• MEVAC/DC FANS	84

DOMESTIC RESIDENTIAL EXTRACT

SLIMAIRE 230V & 12V SINGLE SPEED & TWIN SPEED FANS FOR WALL, WINDOW & CEILING



NGKF FANS FOR WALL & CEILING



BENEFITS

MEETS REGULATIONS

Part F Building regulations compliant.

ULTRA MODERN DESIGN

Provides an unobtrusive installation and occupant acceptability.

IPX4 SPLASHPROOF

Can safely be installed in Zones 1 / 2.

QUIET RUNNING

For occupant acceptability.

EASY INSTALLATION

Can be surfaced mounted or recessed.

MAINTENANCE

Clip of cover of access to clean.

FLEXIBLE SOLUTIONS

Wide range of options to cover toilet, bathroom, utility and kitchen applications.

FAN INDICATOR LIGHT

Showing the fans operation.

FIXED BACK DRAUGHT SHUTTERS

Prevents draughts when fan not in operating mode.

1 YEAR WARRANTY

BENEFITS

The Nuair NGKF range of Kitchen fans is one of the most versatile units available.

It can ventilate a number of different rooms type by adjusting the integral performance selector switch to achieve the desired duty.

FLEXIBLE SOLUTIONS

Designed to be mounted on walls or ceilings and discharged through flexible or rigid ducting.

STRENGTH & DURABILITY

Manufactured from impact resistant ABS thermo plastic.

CENTRIFUGAL IMPELLER

Powerful backward curved centrifugal impeller.

INTEGRATED DAMPER

Spring operated non-return damper is built into the discharge spigot to prevent backdraughts.

SIMPLE TWO STEP INSTALLATION

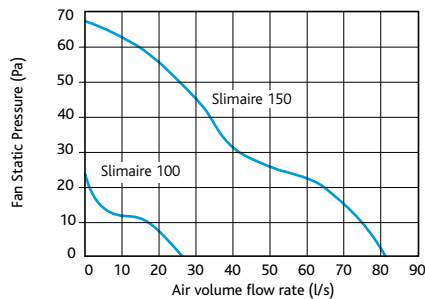
MEETS REGULATIONS

Complies with the 2006 Building Regulations on Ventilation – ADF.

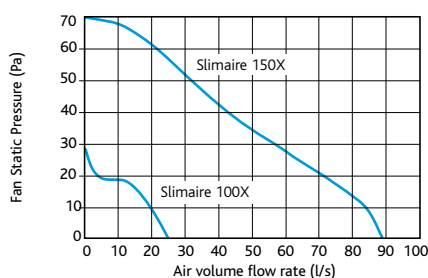
1 YEAR WARRANTY

PERFORMANCE

Slimaire 100 and 150 Slimline Extract Fans

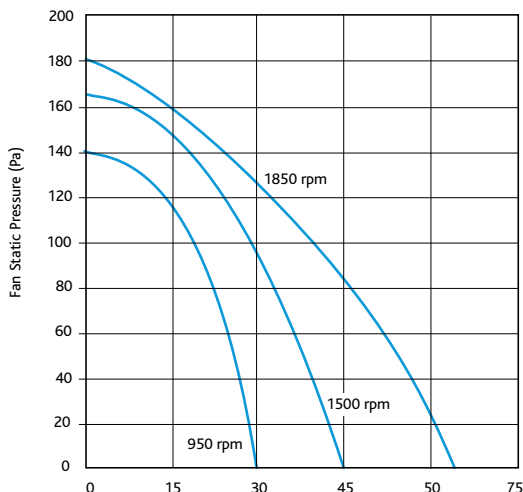


Slimaire 100X and 150X Slimline Extract Fans



PERFORMANCE

NGKF Kitchen Fans

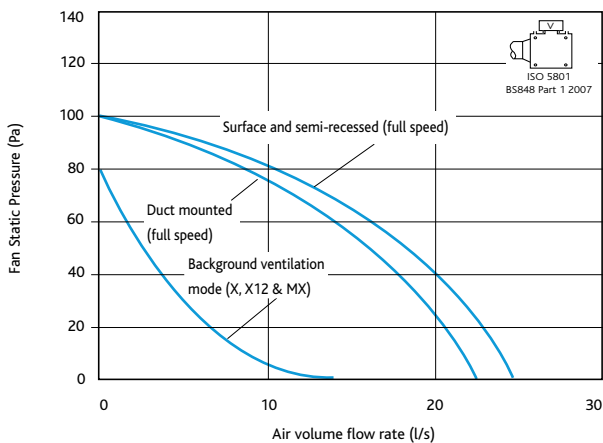


DOMESTIC RESIDENTIAL EXTRACT

GENIE LOW MAINTENANCE 12V & 230V EXTRACT FANS



PERFORMANCE



BENEFITS

MEETS REGULATIONS

Complies with Building Regulations.

EXTREMELY QUIET

Utilising market leading AC motors to produce the quietest of AC fans.

QUICK & EASY INSTALLATION AND MAINTENANCE

Clip in push fit components ensure reduced time on site.

ECONOMICAL

Low running costs.

COMPLETE USER SAFETY

Flame retardant construction and Genie 12V model is IPX4 rated.

WIDE RANGE OF OPTIONS

Range is ideal for all applications including bathroom, en-suite kitchen and utility areas. Available in 230V or 12V with choice of controls.

FLEXIBLE SOLUTION

Mount anywhere. Install in the wall, ceiling or window. Low profile recess option is also available. (Window kit code – WINKIT).

EASY TO CLEAN

Simply remove filter and wash in warm soapy water.

1 YEAR WARRANTY

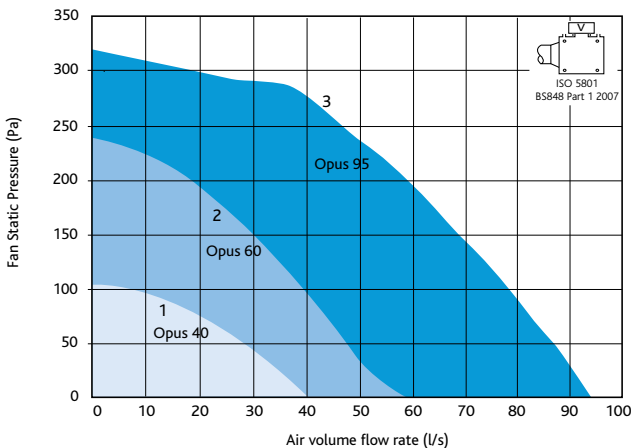
DOMESTIC RESIDENTIAL EXTRACT

OPUS 40 / 60 / 95



PERFORMANCE

Opus 40, 60 and 95



BENEFITS

VERY QUIET OPERATION

Units offer high performance with low noise levels.

MOST EFFICIENT SYSTEMS

Latest DC motor design providing high performance with the lowest possible Specific Fan Power available in its class. Will conform to Part L2.

GUARANTEED VENTILATION

The most compact cost effective twin fan available for the duty range.

QUICK & EASY TO INSTALL

Unit can be installed as recessed or surface mounted on site.

SIMPLE TO COMMISSION

Integral control facility enables the duty to be precisely set without the need for additional controls.

CONTROLS

A choice of 'on-board' and 'remote' control options are available, including Ecosmart energy efficient controls.

FLEXIBLE SOLUTION - SIDE DISCHARGE

Unit can be installed horizontally or vertically. Range offers surface, recessed or duct mounted options.

CONTINUOUS VENTILATION

Twin fans allow for automatic changeover to standby fan in event of fan failure.

SPECIALIST OPTION

Vandal proof grille available for extra security and protection.

1 YEAR WARRANTY

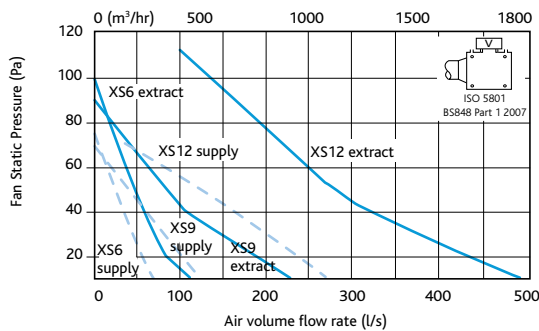
DOMESTIC RESIDENTIAL EXTRACT

XS EXTRACT WALL, WINDOW & ROOF EXTRACT FANS

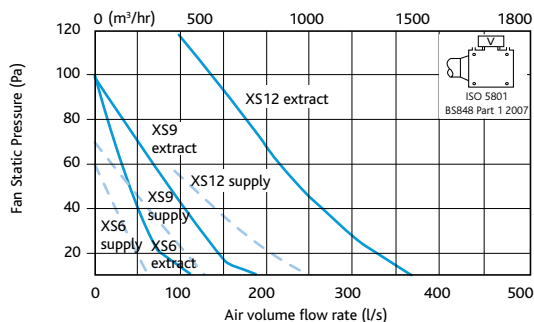


PERFORMANCE

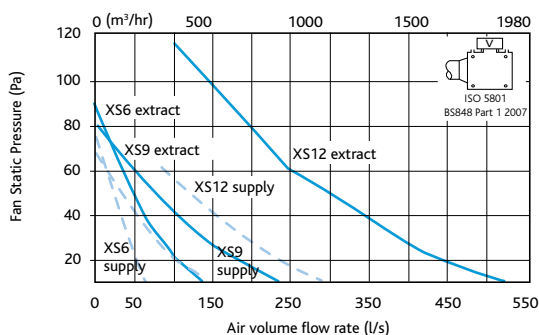
XS (GL) Window Extract Fans



XS (PR/FR) Roof Extract Fans



XS (WA) Wall Extract Fans



BENEFITS

MARKET LEADING DESIGN

Wide range to suit most applications including wall, window, roof and ceiling (6, 9 & 12").

QUIETEST OPERATION

Ultra quiet wax thermo actuator, together with market leading motor and impeller technology combine to produce one of the quietest wall fans available.

'MULTI' FAN SPEED CONTROL

Allows up to 5 fans to be connected to one speed control.

HIGH PERFORMANCE

High efficiency impeller and external rotor motor out performs (up to 530l/s/ 1908m³/hr) its competitors at much lower noise levels (from 31dBA).

FLEXIBLE SOLUTION

Reversible for extract and input with infinitely variable speed control.

SAVE ENERGY & MONEY

Economy speed setting that will maximise performance at the lowest energy use.

COMPLETE USER SAFETY

Robust construction, manufactured from flame retardant ABS polymer IP44 rated for long life.

EASY REFURBISHMENT

XS refurb kits are quick to install and can be used to replace most existing systems.

FLEXIBLE CONTROLS

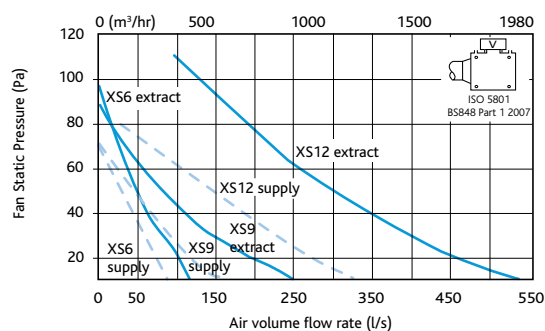
A wide range of sensors including PIR, humidity, air quality, run on timer and thermostat can be integral within the unit or mounted separately.

EASY TO SPECIFY AND ORDER

Fans are supplied complete with kit ensuring no missing components on-site.

1 YEAR WARRANTY

XS (CL) Roof Ceiling Fans

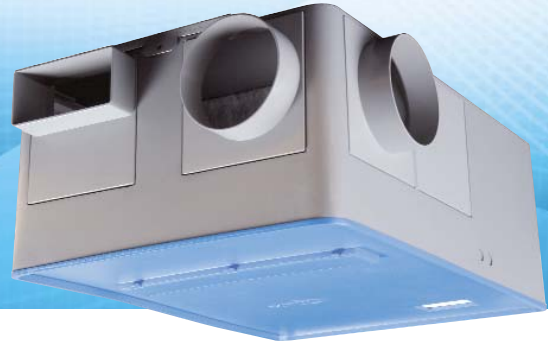


DOMESTIC RESIDENTIAL EXTRACT

COOKERHOOD HIGH PERFORMANCE STAINLESS STEEL EXTRACT FANS



MEVAC & MEVDC MULTI-POINT EXTRACT FANS



BENEFITS

HIGH PERFORMANCE

424m³/hr extraction capacity through tangential motor.

EASE OF USE

Simple push button control to generate speed and lighting.

EASY CLEAN

Stainless steel 600mm cookerhood and integral grease filters.

OPTIONAL EXTRA'S

2 x S1 carbon filters for air recirculation.

1 YEAR WARRANTY

SPECIFICATIONS

Casing shall be manufactured from easy to clean stainless steel.

The unit is fitted with two, washable metallic grease filters for quick and easy maintenance.

The hood must be fitted in accordance with the manufacturers instruction and maintenance manual (available from www.nuairegroup.com).

Note: the cooker hood will need to be sited a minimum of 650mm above the hob.

BENEFITS

MEETS BUILDING REGULATIONS

SAP Appendix Q recognised. Part F&L - England & Wales. Scottish technical handbook (BRE398 referenced).

LOW DEPTH, HIGH PERFORMANCE

Only 190mm deep & up to 98l/s.

MOST EFFICIENT

Latest DC motors provide high performance with low SFP.

QUIETEST SOLUTION

Advanced motor and impeller technology with acoustic lined lid.

QUICK INSTALLATION

Unique locating bracket.

REMOTE FAILURE INDICATOR

Visual and audible failure indicator. Code: ES-AVI / ES-OPUS-RFI.

EASY COMMISSIONING

Ecosmart 'dial a duty' option allows for infinitely variable speed selection.

EASY MAINTENANCE

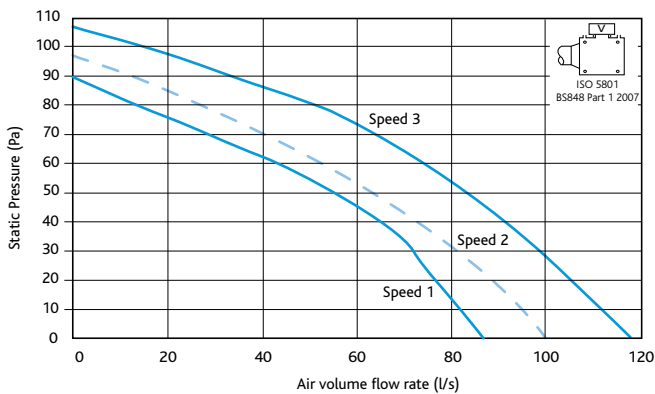
Easy to access for optional filters.

ADDED STRENGTH

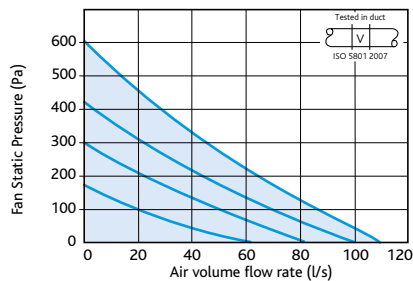
ABS moulded case & lid provides longer life and a more robust unit.

1 YEAR WARRANTY

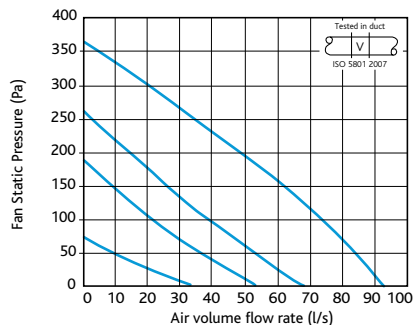
PERFORMANCE



MEVDC Multi Point Extract



MEVAC Multi Point Extract



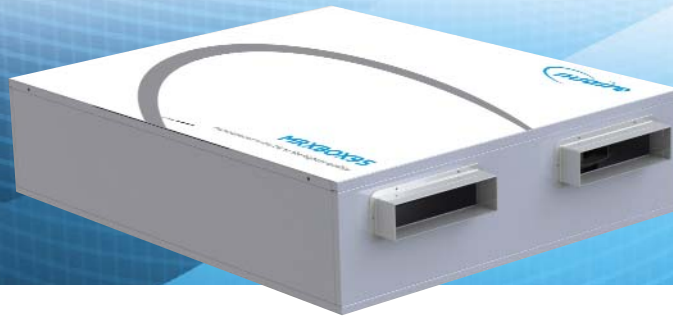
RESIDENTIAL VENTILATION SYSTEMS

SECTION 8	PAGE
• MRXBOX95-LP	86
• MRXBOX95-LH1 & LH2	87
• MRXBOX95-WALL	88
• MRXBX95-WH1	89
• MRXBOX90	90
• COOKERXBOX	91
• MEVAC/DC	92

RESIDENTIAL VENTILATION SYSTEMS

MRXBOX95-LP HIGH PERFORMANCE, LOW PROFILE, VOID MOUNTED, SUPPLY AND EXTRACT MECHANICAL VENTILATION UNIT WITH ENERGY RECOVERY

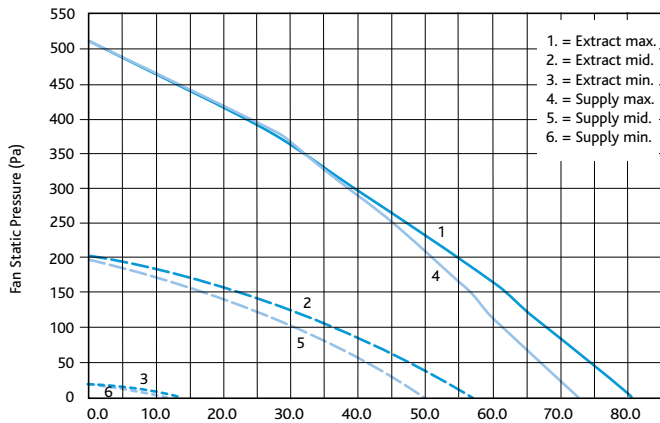
System works to pre-heat or cool incoming air supply.



PERFORMANCE

With specific fan power down to 0.58 w/l/s the MRXBOX95-LP provides the lowest SFPs of any void-mounted MVHR system available, and provides ultra-efficient ventilation for apartments with up to four wet rooms.

MRXBOX95-LP Supply through bypass assembly



BENEFITS

When storage space is at a premium and you can't accommodate a standard MVHR unit in your apartment design, our new void-mounted system is the ideal space-saving solution. The latest technology of low watt DC fans and motors not only significantly reduce power consumption but also lower operating and life cycle costs for the benefit of the user.

SAP Q ELIGIBLE

THE LOWEST SFPs of any void-mounted MVHR available today.

HIGH HEAT EXCHANGE EFFICIENCY

EXTREMELY QUIET RUNNING

EXTRA VENTILATION

3 speed settings to provide extra ventilation in apartments with fewer openable windows.

LOW DEPTH

Plus easy access to filters.

SUMMER BYPASS

Fully automatic, as standard.

CAN ASSIST WITH THE EFFECTS OF SUMMER OVER-HEATING

INDEPENDENT CONTROLS

For easy & simple commissioning.

1 YEAR WARRANTY



RESIDENTIAL VENTILATION SYSTEMS

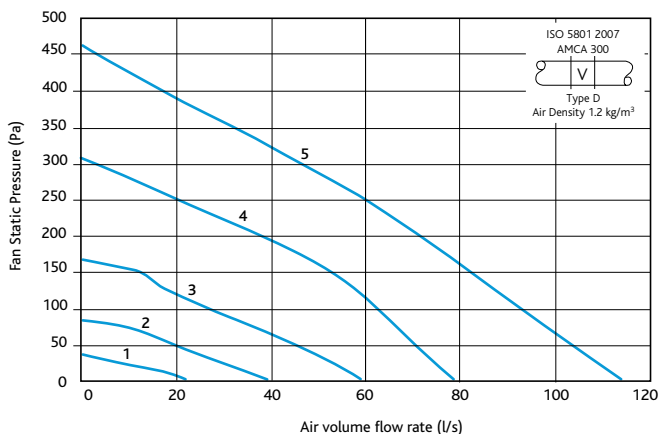
MRXBOX95-LH1 & LH2 LOFT MOUNTED, SUPPLY AND EXTRACT MECHANICAL VENTILATION UNIT WITH ENERGY RECOVERY

System works to pre-heat or cool incoming air supply.

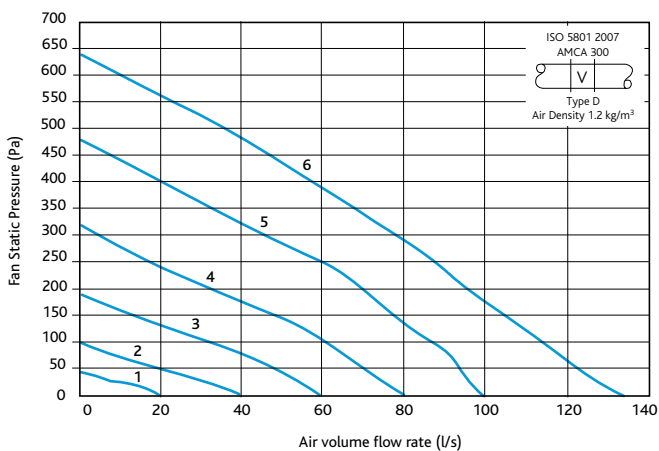


PERFORMANCE

MRXBOX95-LH1



MRXBOX95-LH2



BENEFITS

MEETS BUILDING REGULATIONS

SAP Appendix Q recognised. Part F&L - England & Wales. Scottish technical handbook (BRE398 referenced). Technical booklet K1998.

VERY HIGH EFFICIENCY

To meet customer requirements on SAP scores ensuring the reduction in emissions needed for code level 3 and above (25% reduction).

LOW MAINTENANCE

High quality components ensure lowest possible maintenance and long life motors. Filter replacement typically every 5 years.

LOW POWER CONSUMPTION

Reducing operating and the life cycle costs.

COMPACT

Dedicated design ensureS the most compact size for duty on the market.

LIGHTWEIGHT

A one man lift for ease of install.

EXTREMELY LOW NOISE LEVELS

Quiet running unit, ensuring occupant acceptability.

HEALTHIER ENVIRONMENT

High efficiency filters removes up to 95% of dust particles.

DESCREET RUN MONITOR

Records units operational time.

OPTIONAL SUMMER BYPASS AVAILABLE

Provides cooling during warmer months. MRXBOX95B-LH1.

1 YEAR WARRANTY

RESIDENTIAL VENTILATION SYSTEMS

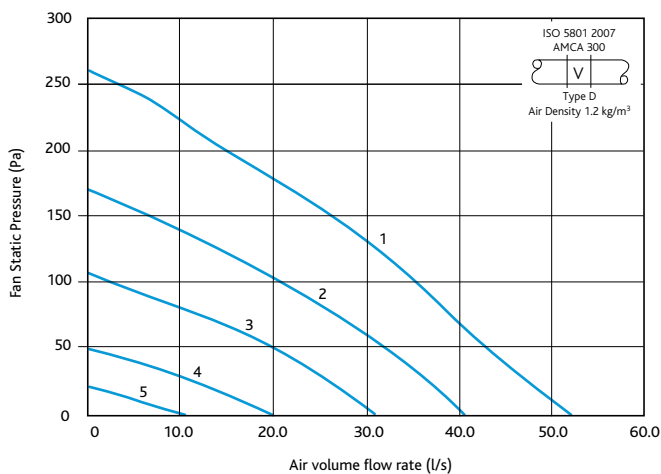
MRXBOX95-WALL MOUNTED, SUPPLY AND EXTRACT MECHANICAL VENTILATION UNIT WITH ENERGY RECOVERY

System works to pre-heat or cool incoming air supply.



PERFORMANCE

MRXBOX95-WALL



BENEFITS

MRXBOX95-WALL is designed to provide optimised balanced (supply and extract) mechanical ventilation with heat recovery. Tempered air is delivered into 'living' areas whilst extracting moisture laden air from 'wet' areas, creating comfortable well ventilated homes. MRXBOX95-WALL uses the latest generation of low voltage DC fans and motors, counter flow heat exchanger and easy accessible controls. The heat exchanger block can recover up to 95% of the normally wasted heat. The two independent fans has full speed control for background and boost ventilation rates as well as a run-on timer facility.

MEETS BUILDING REGULATIONS

SAP Appendix Q recognised. Part F&L - England & Wales. Scottish technical handbook (BRE398 referenced). Technical booklet K1998.

HIGH EFFICIENCY

Heat exchanger is up to 95% efficient.

EASY INSTALLATION

Compact, lightweight and simple to install. Full installation service available.

LOW MAINTENANCE REQUIREMENT

Filter replacement typically every 12 - 18 months.

NO NEED FOR TRICKLE VENTS

A cost saving and tenant acceptability.

IMPROVES INDOOR AIR QUALITY

Prevents condensation by keeping moisture levels low - creating a healthier environment.

FLEXIBLE SOLUTION

MRXBOX95-WALL ensures a flexible solution with multi 125mm dia. spigots.

EXTREMELY LOW NOISE LEVELS

Quiet running unit ensuring occupant acceptability.

FREE OF CHARGE CODE ADVISORY SERVICE

Takes the stress out of specifying.

WIDE CHOICE

Range of ducting and grilles available, please contact Nuaire.

OPTIONAL SUMMER BYPASS AVAILABLE

Provides cooling during warmer months. MRXBOX95B-WALL.

1 YEAR WARRANTY

RESIDENTIAL VENTILATION SYSTEMS

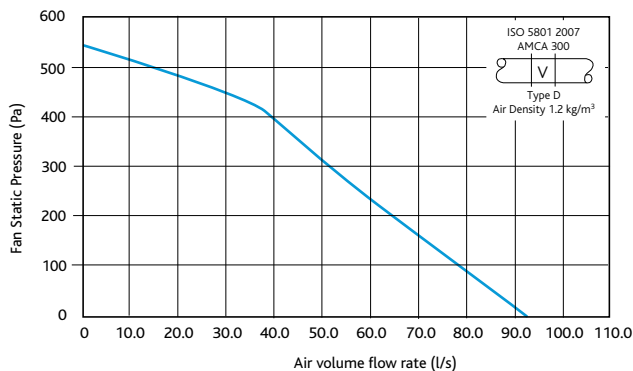
MRXBOX95-WH1, WALL MOUNTED, SUPPLY AND EXTRACT MECHANICAL VENTILATION UNIT WITH ENERGY RECOVERY

System works to pre-heat or cool incoming air supply.

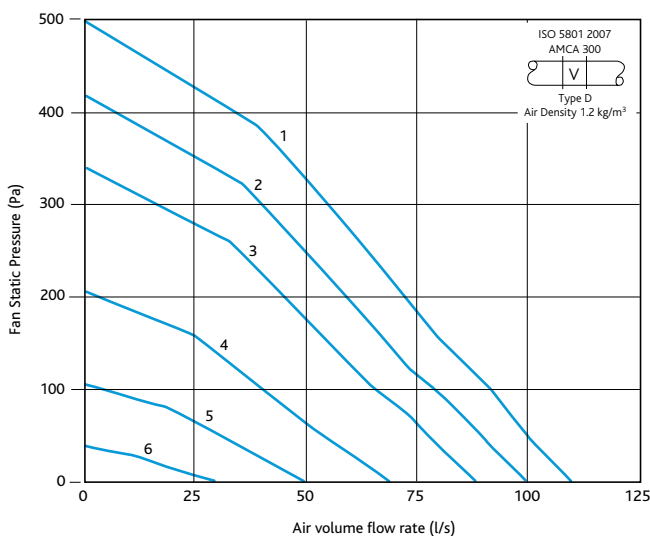


PERFORMANCE

MRXBOX95-MD1



MRXBOX95-WH1



BENEFITS

MRXBOX95-WH1 is designed to provide optimised balanced (supply & extract) mechanical ventilation with heat recovery. Tempered air is delivered into 'living' areas whilst extracting moisture laden air from 'wet' areas creating comfortable well ventilated homes. The unit has the facility to commission the supply & extract fans independently on both minimum and maximum speeds. The heat exchanger block can recover up to 95% of normally wasted heat.

MEETS BUILDING REGULATIONS

SAP Appendix Q recognised. Part F&L - England & Wales. Scottish technical handbook (BRE398 referenced). Technical booklet K1998.

OPTIMUM PERFORMANCE

Low Specific Fan power and high efficiency results in SAP Q.

SUITABLE FOR LARGER APPLICATIONS

Designed to meet the duty for medium to large properties including 3 storey.

COMPACT

The unit fits easily into cupboards not taking up valuable storage space.

EXTREMELY LOW NOISE LEVELS

Quiet running unit ensuring occupant acceptability.

ADDED SECURITY

Windows may be kept closed.

IMPROVES INDOOR AIR QUALITY

High efficiency filters helps to create a healthy living environment.

LOW & EASY MAINTENANCE

Easy accessible filters from front cover – no tools required. Filter replacement typically every 12 - 18 months.

DESCREET RUN MONITOR

Records units operational time.

INTEGRAL FROST PROTECTION

Protects the unit during extreme cold spells.

OPTIONAL SUMMER BYPASS AVAILABLE

Provides cooling during warmer months. MRXBOX95B-WH1.

PRE-COMMISSIONING FILTER PROTECTION

Filters are covered in a removable protective film to prevent clogged up filters prior to occupant handover.

SIMPLE FAN CONTROLS

Independent controls for supply & extract for quick and easy commissioning.

NO REQUIREMENT FOR TRICKLEVENTS

Reduces noise from outside - overcome draught issues.

1 YEAR WARRANTY

RESIDENTIAL VENTILATION SYSTEMS

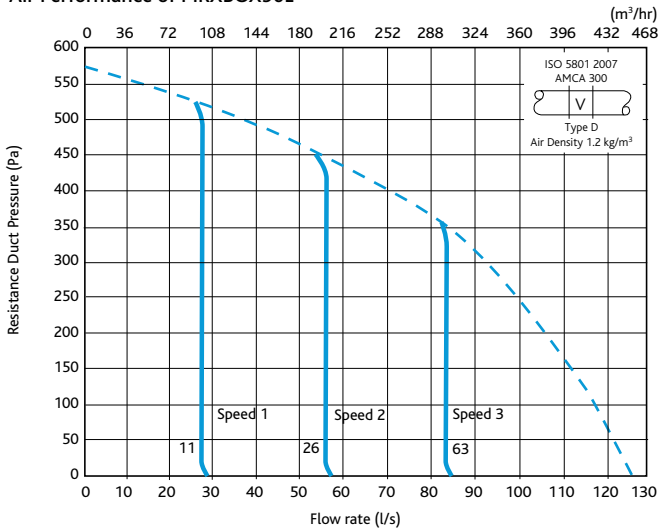
MRXBOX90L, LOFT MOUNTED, SUPPLY AND EXTRACT MECHANICAL VENTILATION UNIT WITH ENERGY RECOVERY

System works to pre-heat or cool incoming air supply.



PERFORMANCE

Air Performance of MRXBOX90L



BENEFITS

MEETS REGULATIONS

SAP Appendix Q recognised.
Certified by Passivhaus Institute.

HIGH EFFICIENCY

90% efficient, with DC motors using
50% less energy than traditional fans.

EXTREMELY LOW NOISE LEVELS

Acoustic insulation ensures the ideal
solution for loft or cupboard
installations.

GUARANTEED CONSTANT AIRFLOW

2 self adjusting fans provide constant
fresh air.

HEALTHY ENVIRONMENT

Removes up to 95% of the dust from
the atmosphere.

LOW AND EASY MAINTENANCE

Unit is fitted with filter indication
display. Easy access to filters via "tool
free" hinged door.

SIMPLE TO SET UP

Units have a display for easy
installation.

AUTOMATIC SUMMER BYPASS AS STANDARD

Unit has summer bypass as standard.
Unit continuously monitors the
temperature inside and outside and
will bypass the heat exchanger when
appropriate.

MULTI OPTION CONTROLS AND SENSORS

Inbuilt controls that automatically
adjust the fan speed to suit the
individual systems pressure drop. Wide
choice of controls including 3 speed
trickle/boost and purge and optional
wireless remote control.

1 YEAR WARRANTY

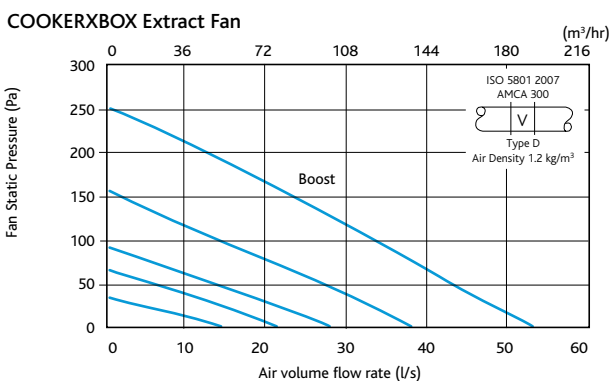
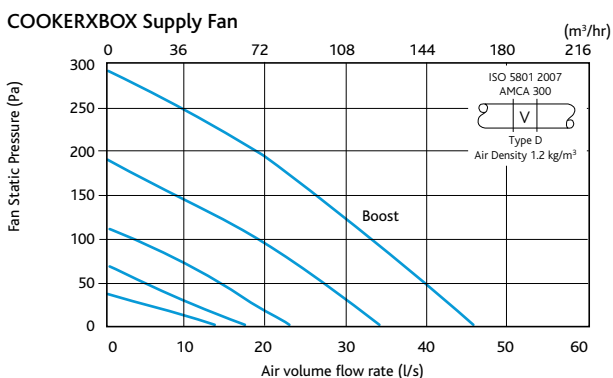
RESIDENTIAL VENTILATION SYSTEMS

COOKERXBOX KITCHEN CANOPY, SUPPLY AND EXTRACT MECHANICAL VENTILATION UNIT WITH ENERGY RECOVERY

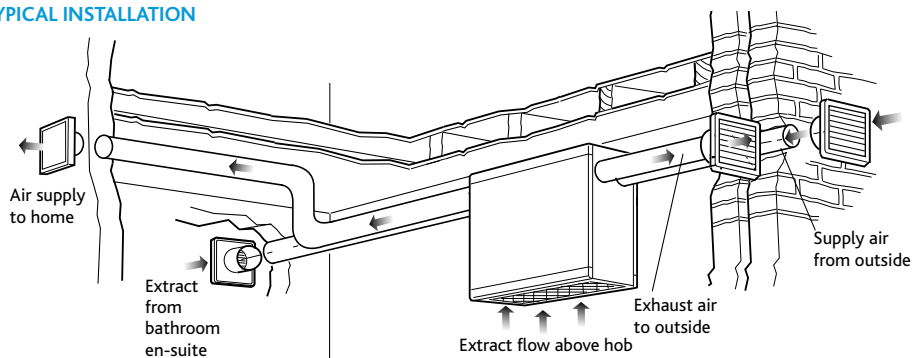
System works to pre-heat or cool incoming air supply.



PERFORMANCE



TYPICAL INSTALLATION



BENEFITS

SLIM LINE PROFILE

Designed to sit behind cupboard door.

HEAT RECOVERY

From 66% effective. Recovers heat when cooking, supplying warm air into dwelling avoiding condensation.

MEETS REGULATIONS

New build 'best practice' rating in GPG 268.

FLEXIBLE SPEED CONTROL

4 speed settings with automatic boost facility (thermostat senses air temp and boosts when required).

FLEXIBLE INSTALLATION

Connections are either from the sides or top. Side connections are used to enable the ducting to run across the top of kitchen wall units.

QUICK & EASY MAINTENANCE

Front and underneath panels allows for quick access to condensate drain and electrical supply, with washable grease filters.

FINISH

White pre-coated steel finish with white ABS spigot connections.

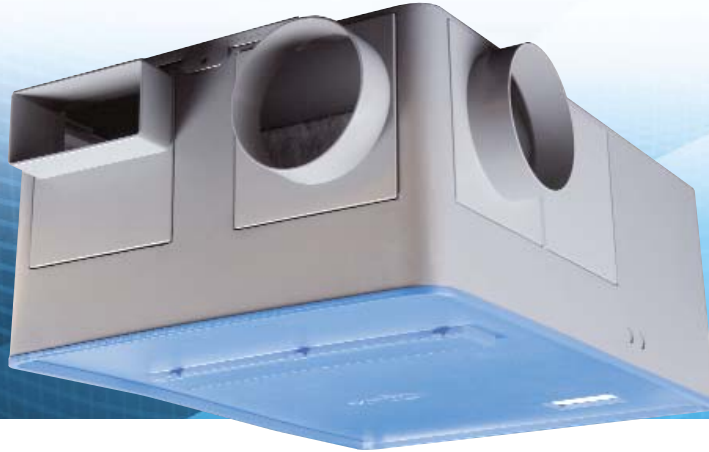
1 YEAR WARRANTY



Designed to sit behind the cupboard door.

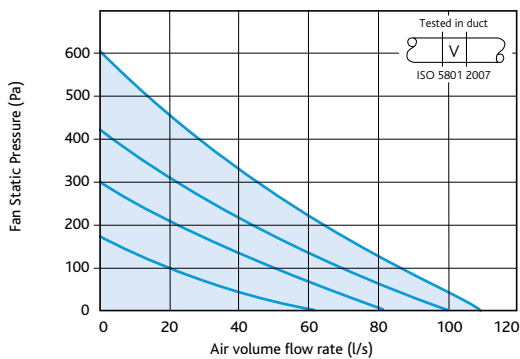
RESIDENTIAL VENTILATION SYSTEMS

MEVAC & MEVDC MULTI-POINT EXTRACT FANS

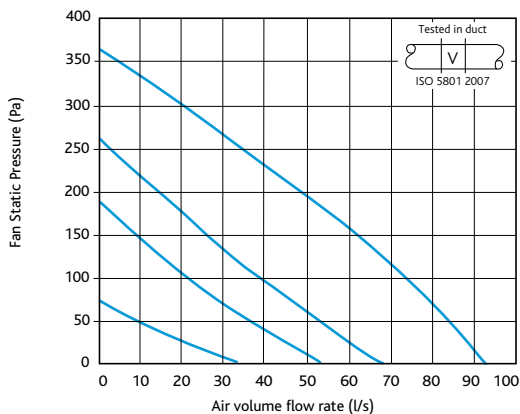


PERFORMANCE

MEVDC Multi Point Extract



MEVAC Multi Point Extract



BENEFITS

MEETS BUILDING REGULATIONS

SAP Appendix Q recognised. Part F&L - England & Wales. Scottish technical handbook (BRE398 referenced).

LOW DEPTH, HIGH PERFORMANCE

Only 190mm deep & up to 98l/s.

MOST EFFICIENT

Latest DC motors provide high performance with low SFP.

QUIETEST SOLUTION

Advanced motor and impeller technology with acoustic lined lid.

QUICK INSTALLATION

Unique locating bracket.

REMOTE FAILURE INDICATOR

Visual and audible failure indicator. Code: ES-AVI / ES-OPUS-RFI.

EASY COMMISSIONING

Ecosmart 'dial a duty' option allows for infinitely variable speed selection.

EASY MAINTENANCE

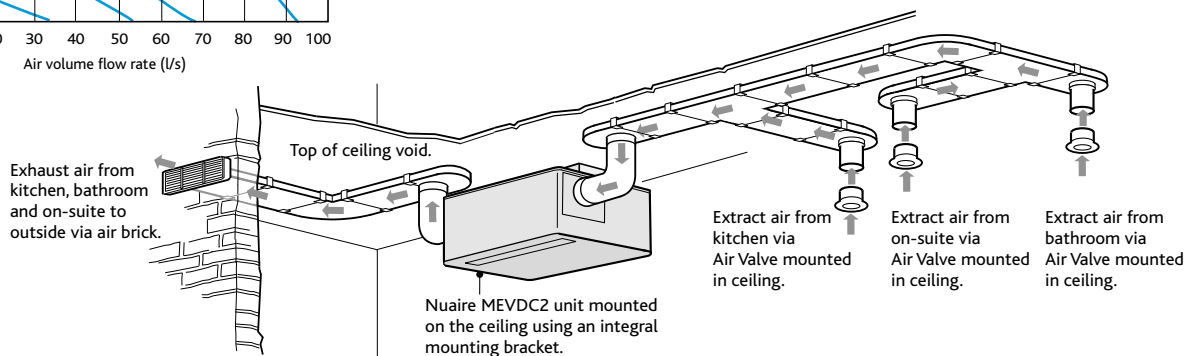
Easy to access for optional filters.

ADDED STRENGTH

ABS moulded case & lid provides longer life and a more robust unit.

1 YEAR WARRANTY

TYPICAL INSTALLATION



POSITIVE INPUT (PIV)

SECTION 9	PAGE
• FLATMASTER	94
• FLATMASTER 2000	94
• DRIMASTER	95
• DRIMASTER 2000	95
• DRIMASTER 365	96
• DRIMASTER HEAT	96

POSITIVE INPUT (PIV)

FLATMASTER & FLATMASTER 2000, WALL MOUNTED UNITS



TYPICAL INSTALLATION



BENEFITS

Low cost ventilation with integral heater for properties with no loft space.

EXTREMELY LOW POWER CONSUMPTION

As low as 3 Watts.

EASY INSTALLATION & VERY LOW MAINTENANCE REQUIREMENT

Filter clean or replacement typically every 18 months.

SIGNIFICANTLY IMPROVES INDOOR AIR QUALITY

Using positive input ventilation removes indoor air pollutants such as carbon monoxide and keeps out traffic fumes, pollen and outdoor pollutants.

COMPLIES WITH THE BUILDING REGULATION VENTILATION REQUIREMENTS

Meets Part F&L England and Wales and contributes towards 'conservation of fuel and power'. (Please refer to BBA Certificate).

RADON GAS CONTROL

Helps reduce and maintain radon gas levels.

CREATES A HEALTHIER LIVING ENVIRONMENT

High efficiency filters removes up to 95% dust particles.

FIT & FORGET OPERATION

Fully automatic when airflow set on installation.

INTEGRAL HEATER SUPPLIED ON DRIMASTER 2000

To provide additional heating of the incoming air if required e.g. during very cold weather. The heater can be used to distribute filtered, warmed air throughout the property.

MANUAL BOOST SWITCH PROVIDED ON DRIMASTER 2000

When additional ventilation is required i.e. cooking odours.

HOUR RUN MONITOR AVAILABLE

To record the units operational time.

1 YEAR WARRANTY

POSITIVE INPUT (PIV)

DRIMASTER & DRIMASTER 2000, LOFT MOUNTED UNITS



TYPICAL INSTALLATION



BENEFITS

Low cost whole house ventilation that meets building regulations, saves energy and prevents condensation.

EXTREMELY LOW POWER CONSUMPTION

Average approximately 0.16 watts / litre / second and solar gains up to 550kW / hr / year.

EASY INSTALLATION & VERY LOW MAINTENANCE REQUIREMENT

Filter clean/replacement every 5 years.

SIGNIFICANTLY IMPROVES INDOOR AIR QUALITY

Using positive input ventilation removes indoor air pollutants such as carbon monoxide and keeps out traffic fumes, pollen and outdoor pollutants.

INTELLIGENT HEAT RECOVERY (DRIMASTER 2000)

Twin sensors optimise energy efficiency, adjusting settings to provide increased comfort.

OPTIONAL BOOST FACILITY (DRIMASTER 2000)

When additional ventilation is required i.e. cooking odours etc.

COMPLIES WITH THE BUILDING REGULATION VENTILATION REQUIREMENTS

Meets Part F&L England and Wales and contributes towards 'conservation of fuel and power'. (Please refer to BBA Certificate).

CREATES A HEALTHIER LIVING ENVIRONMENT

High efficiency G4 filters removes up to 95% dust particles.

FIT & FORGET OPERATION

Fully automatic when airflow set on installation.

FIRE DAMPER AND DIFFUSER FOR 3-STOREY ACCOMMODATION AVAILABLE

The diffuser is manufactured from aluminium and powder coated to an off white finish (RAL 9003). Product code Drimaster-3S.

SYSTEM STANDBY MODE

For summer months when loft temperature exceeds 23°C.

HEALTH

Clinically proven to help allergy and asthma sufferers.

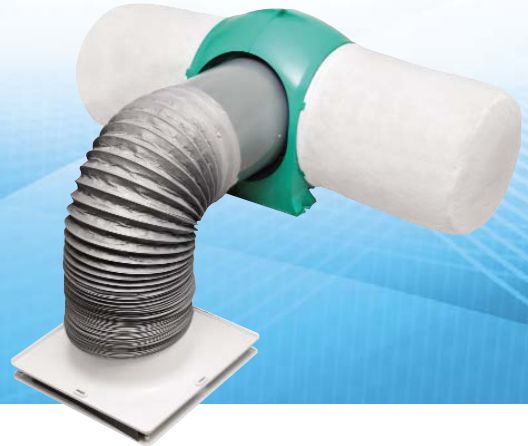
1 YEAR WARRANTY

POSITIVE INPUT (PIV)

DRIMASTER 365, LOFT MOUNTED UNIT



DRIMASTER HEAT, LOFT MOUNTED, WITH INTEGRAL HEATER



BENEFITS

Drimaster 365 is a unique low energy, loft mounted Positive Input Ventilation unit providing whole home ventilation all year round. The unit is totally automatic and intelligently decides what location to supply the air from. It utilises the solar gain within the loft during the colder months subsequently, overcomes excessive solar gains during the warmer months.

EXTREMELY LOW POWER CONSUMPTION

Average approximately 0.16 watts / litre / second and solar gains up to 550kW / hr / year.

EASY INSTALLATION & VERY LOW MAINTENANCE REQUIREMENT

Filter clean or replacement every 5 years.

IMPROVES INDOOR AIR QUALITY

Using positive input ventilation removes indoor air pollutants such as carbon monoxide and keeps out traffic fumes, pollen and outdoor pollutants.

INTELLIGENT HEAT RECOVERY

Twin sensors optimise energy efficiency.

COMPLIES WITH THE BUILDING REGULATION VENTILATION REQUIREMENTS

Meets Part F&L England and Wales and contributes towards 'conservation of fuel and power'.

RADON GAS CONTROL

Helps reduce and maintain radon gas levels.

CREATES A HEALTHIER LIVING ENVIRONMENT

High efficiency G4 filters removes up to 95% dust particles.

FIT & FORGET OPERATION

Fully automatic when airflow set on installation.

FIRE DAMPER AND DIFFUSER FOR 3-STOREY ACCOMMODATION

The diffuser is manufactured from aluminium and powder coated to an off white finish (RAL 9003).

HEALTH

Clinically proven to help allergy and asthma sufferers.

SECURITY

Allows occupants to keep windows closed for added security and reduce noise levels.

OPTIONAL BOOST FACILITY

When additional ventilation is required i.e. cooking odours etc.

OPTIONAL HEATER FACILITY

To provide additional heat to the incoming air if required i.e. during very cold weather.

1 YEAR WARRANTY

BENEFITS

INTEGRAL HEATER

To provide additional heating of the incoming air if required e.g. during very cold weather.

EASY INSTALLATION & VERY LOW MAINTENANCE REQUIREMENT

Filter clean/replacement every 5 years.

SIGNIFICANTLY IMPROVES INDOOR AIR QUALITY

Removes indoor air pollutants such as carbon monoxide and keeps out traffic fumes, pollen and outdoor pollutants.

COMPLIES WITH THE BUILDING REGULATION REQUIREMENTS

Meets Part F&L England and Wales and contributes towards 'conservation of fuel and power'.

RADON GAS CONTROL

Helps reduce/maintain radon gas levels.

HEALTHIER LIVING ENVIRONMENT

High efficiency G4 filters removes up to 95% dust particles.

FIT & FORGET OPERATION

Fully automatic when airflow set on installation.

INTELLIGENT HEAT RECOVERY

Twin sensors optimise energy efficiency.

FIRE DAMPER AND DIFFUSER FOR 3-STOREY ACCOMMODATION AVAILABLE

The diffuser is manufactured from aluminium and powder coated to an off white finish (RAL 9003). Product code Drimaster-3S.

SYSTEM STANDBY MODE

For summer months when loft temperature exceeds 23°C.

1 YEAR WARRANTY



CONTROLS & SENSORS

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CONTROLS & SENSORS

ECOSMART ENERGY SAVING CONTROLS & SENSORS



PERFORMANCE

The most flexible energy saving ventilation control system on the market with full BMS interface.



Touch screen user control.



ES-PIR2 sensor.



ES-CO2RM - Low voltage CO2 and temperature sensor.

BENEFITS

SIMPLE TO INSTALL

All controls are pre-assembled, configured and installed directly into the fan or air handling unit, this includes 3-port motorised valves and actuators, pipework, off coil thermostats and sensors, frost protection, etc. Site time kept to a minimum, quality and efficiency maintained.

SIMPLER SYSTEMS

No need for main VCD, no wasted energy or noise generation because the air volume can be precisely set via the integrated speed control, minimum and maximum speeds easily adjusted via Ecosmart commissioning panel.

SIMPLE, PRECISE COMMISSIONING

As recommended in Part L, Ecosmart enables the system to be accurately commissioned via an integrated speed control, minimum/maximum speeds easily adjusted via commissioning panel integral to the control.

QUIETER SYSTEMS

With Ecosmart your system is only at maximum design duty when absolutely necessary. The noise levels within your systems are lower because the fans or air handling units are rarely at full speed.

IMPROVED LIFECYCLE

Ecosmart enables the fan or air handling unit to be run at lower speeds. This reduces the maximum load and wear and therefore increases the overall working life of the units.

DEMAND VENTILATION

Only ventilates the area when you want it to - why fully ventilate a room when it's not occupied - maximum savings possible achieved.

HEALTHY ATMOSPHERE

Ecosmart has a trickle function as standard which when activated, via a simple switch, enables you to set a background ventilation rate, keeping the rooms fresh when unoccupied, whilst still saving energy. System will boost or ramp to maximum design duty when triggered by an Ecosmart or other external device.

PLUG IN CONTROLS

Simple low voltage sensors complete with pre-plugged cable means that any control function is easily achieved. You decide which conditions to monitor and the system will operate at the optimum speed.

BMS INTERFACE

Integrated BMS features enable any central system to control and monitor the fan or air handling unit via 0-10V signal. This enables full speed control and heating or cooling enable if installed and volt free status indication as standard.

1 YEAR WARRANTY



CONTROLS & SENSORS

ECOSMART INCLUDES A WIDE RANGE OF OPTIONSS

Simple SELV wired, plug-in 'enablers' start and stop the fan, when activated from either start-up or trickle ventilation mode. These 'enablers' include time clocks, infra-red detectors, switch live contacts, humidistats, thermostats and BMS contacts.

All systems must include at least one enabler. (NB. When used, BMS control and time clocks take over all other enablers).

Integrated speed control (inverter or electronic) is included with all Ecosmart controlled fans and air handlers. ES-ISC are external to some fans and need to be hard wired eg. SQF, Airmover.

Once the fan is activated the sensor takes over. They will maintain comfort/ design conditions by automatically adjusting fan speed up and down and power or flows through elements or heating/ cooling coils. The sensors include temperature, relative humidity, CO₂ or as determined by the BMS.

Stylish and simple to operate user control facilitates manual operation where desired.

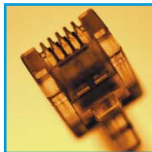


BMS

0-10V dc signal to activate the system and modulate fan speed. Select/Deselect H&C.
Note: this will override any other devices (eg. ES-UCF) fitted (except in Constant Pressure fans).

ECOSMART ENABLERS & DETECTORS

Simple Plug-in System



ES-PIR2 (Passive Infra-Red)

Detects movement and activates system. Incorporates a system status LED, overrun timer and timer adjustment.



ES-LCD

Touch screen user control in white incorporating time clock facility. This can control the function of the fan by manual setting or using a set of timed programs.



ES-LCDM

Touch screen user control in metal incorporating time clock facility. This can control the function of the fan by manual setting or using a set of timed programs.



ES-HUMIDISTAT2

Activates the system when the RH level is above set point. Incorporates two system status LEDs (Green = OK, Red = Failure) and RH set point level adjustment.



ES-THERMOSTAT2

Activates the system when the temperature is above set point. Incorporates two system status LEDs (Green = OK, Red = Failure) and temperature set point level adjustment.



ES-AV12

When fan failure occurs the AV1 will flash a warning. Supplied with pre-plugged 10m length of communication cable.



ES-CO2RM

ES-CO2RMPP
Surface mounted room carbon dioxide (CO₂) sensors which incorporate a temperature sensor. RM = SELV option, RMPP complete with SELV AC powers supply.



ES-HTCSIG

Signal conditioning circuit for humidity, temperature and CO₂ sensors.

ECOSMART SPEED CONTROLLING SENSORS



ES-TEMP2 Temperature Sensor

Modulate fan speed based on room temperature. Incorporates two system status LEDs (Green = OK, Red = Failure) and temperature set point level adjustment.



ES-RH2 Relative Humidity Sensor

Modulate fan speed based on RH level. Incorporates two system status LEDs (Green = OK, Red = Failure) and RH set point level adjustment.



ES-UCF Manual user control

Manual 'on' and 'off' system user/speed control. Incorporates two system status LEDs (Green = OK, Red = Failure).



ES-CI Semi-automatic user control

Fan, heating & cooling selected by external volt free switch, speed selected by 0-10V signal.



ES-JB Junction box

Designed to be compatible with Ecosmart System this unit is supplied with a pre-plugged 10 metre length of communications cable and has 8 further ports.



ES-CO2 Sensor

Duct mounted sensor to modulate fan speed based on CO₂ levels. Connect to fan directly. Pre-wired with 2m cable (not adjustable).



Switched Live by others

Any mains voltage signal connected to the switched live terminal (S/L) in the unit. This affects the connected fan only.

CONTROLS & SENSORS

ECOSMART, BMS AND COMMISSIONING CONTROL OPTIONS

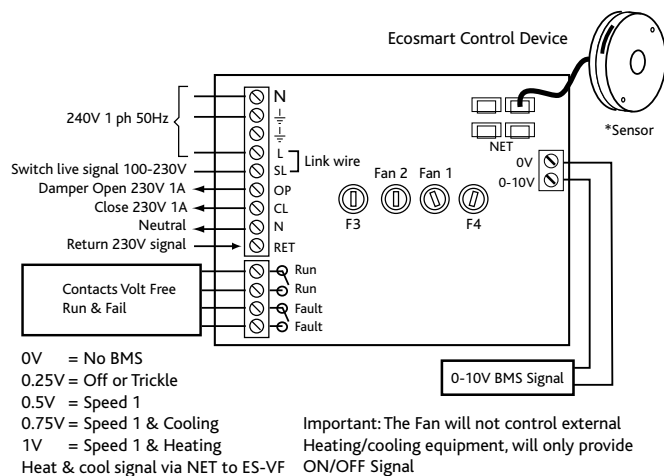
Nuaire fans and Air Handling Units can be provided with the following pre-selected control options, simply and easily by adding letters to the end of the fan code, there is no need to select or specify the controls individually if one of these options are chosen :

ES ECOSMART CONTROLS

The compact Ecosmart control module comes complete with a factory fitted Ecosmart PCB which will control the fan unit within the desired design parameters and provide the interface between all external control devices detailed on these pages.

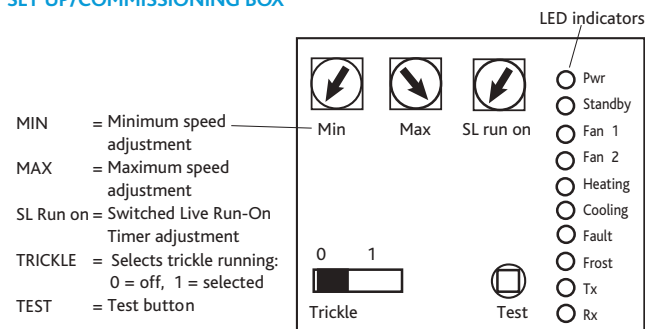
The Ecosmart control module has the following energy saving components integrally mounted, pre-wired to interface with the purpose made PCB, all components pre-wired, configured and factory fitted by the manufacturer: (Not pre-wired to eg. SQF, Airmover).

- Integral Frequency inverter/speed controller.
- Integral maximum and minimum speed adjustment for commissioning.
- Integral adjustable run on timer.
- Integral BMS interfaces - 0- 10V speed adjustment.
- Integral BMS interfaces - Volt free failure and status indication.
- Integral background ventilation switch (trickle switch).
- Multiple IDC sockets for interconnection of sensors or fans using pre-plugged 4-core low voltage cable.
- Pre-programmed with soft start function



*Not included as standard.

SET UP/COMMISSIONING BOX



The Ecosmart control module has the following two options fitted as standard.

BMS INTERFACES

The Ecosmart control module can be pre-configured to provide the following integrated BMS interfaces.

- 0 - 10 volt input to provide a full BMS interface. This will enable the following functions:-
 Switch the unit ON/OFF.
 Switch heating or cooling ON/OFF (AHUS with relevant coils).
 Switch from low speed to high speed - variable.
 Switch from low speed to high speed - trickle and boost principle.
 Full speed control facility.
- 2 No. Volt free contacts to provide fan run and failure indication to provide system status.
- An integrated commissioning/speed control to accurately commission the system, with minimum and maximum speeds easily adjusted via a miniature dial, as recommended in Part L. This will enable the unit to be configured to run between set parameters thus saving motor power and limiting noise.
- Pre-programmed with soft start function.

COMMISSIONING SET UP

The Ecosmart control module can be pre-configured to provide the following integrated commissioning features only.

- Integrated commissioning/speed control to accurately commission the system, as recommended in Part L, This will enable the unit to be configured to run between set parameters thus saving motor power and limiting noise.
- Minimum and max speeds easily adjusted via miniature dial. The commissioning set up facility directly controls the integrated speed control/frequency inverter.
- Pre-programmed with soft start function

ENABLING SENSOR

ES-PIR2 SENSOR

The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable. The ES-PIR sensor will activate the system when movement is detected. An adjustable 1-60 minute timer is incorporated to provide a run on facility. Up to 10m directly in front of lens and up to 2m at 40° to the lens axis.

When adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 1 green flash and 5 red flashes show you that the PIR timer is set to fifteen minutes.

ES-THERMOSTAT2

The ES-Thermostat will enable the fan when the ambient temperature is 1°C above the set point and will stop the fan when the temperature is at or below set point. The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable. Adjusting the sensor set points. Adjustable temperature setting 10 - 35°C.

After adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 2 green flashes and 3 red flashes show a temperature set point of 23°C.

CONTROLS & SENSORS

ES-HUMIDISTAT2

The ES-Humidistat will enable the Ecosmart fan when the measured humidity level is 2% above the set point and will stop the fan when the humidity is at or below set point. The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable. Adjusting the sensor set points - Adjustable RH setting 65 - 85%.

After adjustments are made to the sensor, the LED light on the sensor will flash indicating via a small aperture on the side of the sensor the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 7 green flashes and 3 red flashes show a RH set point of 73%.

SPEED CONTROLLING DEVICES

ES-RH2 HUMIDITY SENSOR

The ES-RH Sensor will vary the ventilation rate automatically according to the measured humidity. Voltage (SELV) with power supplied from the fan unit via the communications cable. The sensor has an adjustable 65-85% RH set point.

After adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS.

For example 7 green flashes and 5 red flashes show a set point of 75% RH.

Note: fan speed = 0 (i.e. off) at or below the set point.

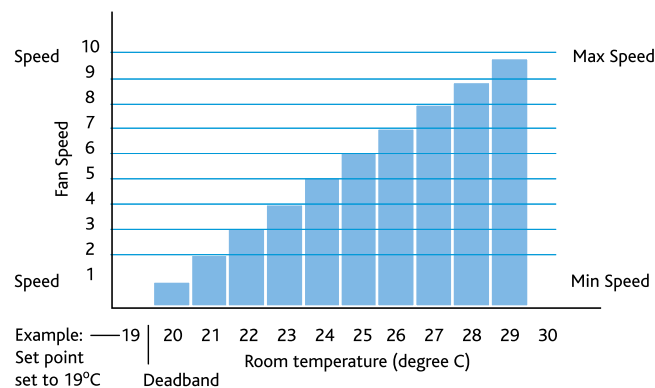
ES-TEMP2

This will modulate fan speed based on room temperature. The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable.

After adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS.

For example 2 green flashes and 3 red flashes show a temperature set point of 23°C.

Note: fan speed = 0 (i.e. off) at or below the set point.



SENSOR RESPONSE - Normal operation (Proportional band over ten 10°C steps)

When temperature RISES, the fans will increase speed. (See above) which shows a set point at 19°C. For single phase fans, the speed steps are approximate and actual running speeds will be dictated by the operating pressure of the system and the type of impeller used in the blower. Fan is switched off at set point unless the trickle switch is selected.

ES-CO2 CARBON DIOXIDE SENSOR - OPERATION

The CO₂ Sensor will adjust the fan speed in response to the CO₂ concentration in the airflow. The fan speed is divided into 10 steps from minimum (step 1) to maximum (step 10). See table below for response details.

Speed	1	2	3	4	5	6	7	8	9	10
CO ₂ PPM	502	580	659	737	834	902	980	1059	1137	1215

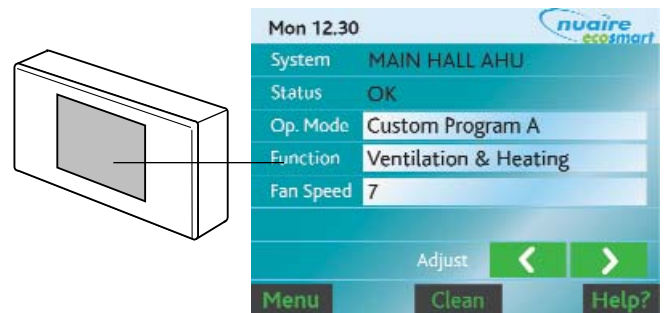
ES-LCD AND ES-LCDM (TIME CLOCK INCLUDED)

The ES-LCD/M Time clock will switch the system on and off at pre-determined times set by the user. This digital time clock will override the user control for effective on/off operation or any other enabling device eg. PIR. The time clock operates on Safe Extra Low Voltage and is powered from the fan control module. The connection is made into any 'NET' socket on the fans integral control module. See I&M for further details.



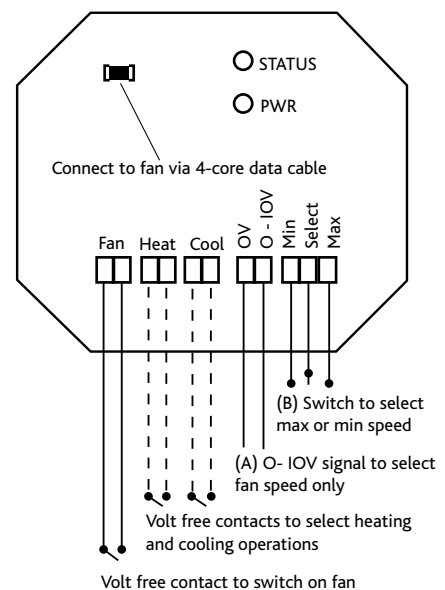
ES-LCD AND ES-LCDM INCLUDES:

Ventilation, Automatic Heating & Cooling Enable/Disable. Temperature is set at main control of unit.



ES-CI (ECOSMART CONTROL INTERFACE)

Enables any Ecosmart unit to be controlled via any remote non Ecosmart switching device or item of plant.



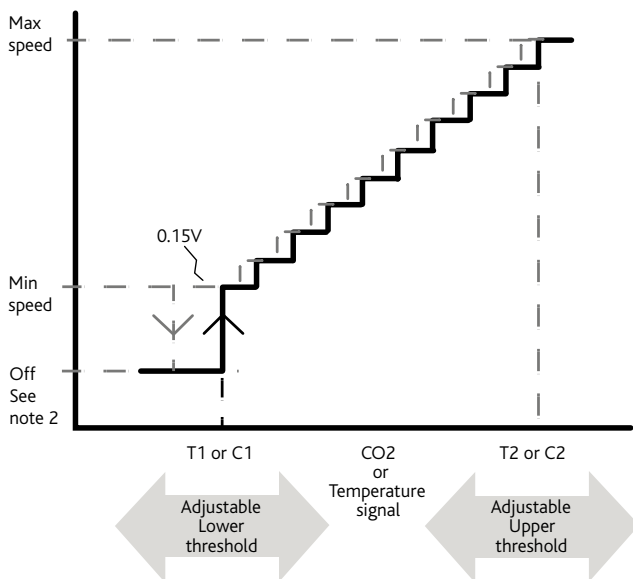
CONTROLS & SENSORS

ES-CO2RM AND ES-CO2RMPP CO₂ SENSOR



PERFORMANCE

The lower and upper threshold values can be adjusted as shown in the following table below.



Note: Default operation is CO₂ only. To select temperature option as well please refer to installation manual.

TEMPERATURE THRESHOLD SWITCHES 1-9

Switch settings	3	2	1	Threshold temperatures	
				T1 (°C)	T2 (°C)
Off	Off	Off	Off	25	28
Off	Off	On	On	24	28
Off	On	Off	Off	23	28
Off	On	On	On	22	28
On	Off	Off	Off	25	30
On	Off	On	On	24	30
On	On	Off	Off	23	30
On	On	On	On	22	30

DESCRIPTION

ES-CO2RM

CO₂ and temperature sensor requires SELV power supply by others.

ES-CO2RMPP

CO₂ and temperature sensor supplied with SELV AC power supply.

The sensor will monitor the carbon dioxide (CO₂) and temperature (see note 1) within the room. If either reading reaches the low threshold values (i.e. C1 & T1) see opposite, then a signal will be sent to start running the fan at minimum speed.

As the room CO₂ and temperature rises, the fan speed will progressively increase in steps until the upper threshold values are reached. When both CO₂ and temperature readings are in operation, whichever reading that results in higher fan speed will be used by the fan unit.

The threshold values and other operations can be adjusted by setting DIL switches on the PCB to different positions.

Note 1: As supplied; the default operation of the sensor will be based on carbon dioxide reading. If operation with both carbon dioxide and temperature is desirable then change position of switch 7 to 'ON'.

Note 2: use switch 8 to change the off state (see table opposite).

1 YEAR WARRANTY

CONTROLS & SENSORS

CONTROL CHECKLIST - WHAT'S INCLUDED

The controls indicated in the checklist are incorporated in the units as standard, enabling you to co-ordinate your controls to avoid duplication and reduce costs.

Please refer to this when checking the controls specification.

www.nuairegroup.com/specifications



Fan Code	Fan Type	BMS compatible	Commissioning control	Run/Fail signal (volt free)	Inverter control (3 phase)	Speed control (single phase)	Pre-piped coil (c/w DRV)	Motorised control valve (c/w actuator)	Air off Temp stat	Frost protection	Heat dissipation run on	Plug in sensors (see overleaf)	Trickle and Boost switch	Automatic Bypass
Ecosmart Boxer LPHW	Air Handling	●	●	●	●	●			●	●	●	●	●	
Ecosmart Boxer Electric	Air Handling	●	●	●	●	●			●		●	●	●	
Ecosmart Scurbo	Supply Unit	●	●	●		●	●	●	●	●	●	●	●	
Ecosmart Scurbo Extract	Inline Single fan	●	●	●		●						●	●	
Quietscroll EST	Twin Fan	●	●	●	●	●						●	●	
Constant Pressure	Twin/Single Fan	●	●	●	●							●	●	
Extractor ESX	Inline Single fan	●	●	●	●	●						●	●	
Ecosmart Airmover ESAM*	Inline Single fan	●	●	●	●	●						●	●	
Ecosmart Squif*	Inline Single fan**	●	●	●	●	●						●	●	
Ecosmart Twin Squif*	Inline Twin fan**	●	●	●	●	●						●	●	
Ecosmart Axus*	Inline Single fan	●	●	●	●	●						●	●	
XBOXER Plate heat exchanger	Heat Recovery	●	●	●	●	●	●	●	●	●	●	●	●	●
XBOXER Thermal wheel (size 4 to 6)	Heat Recovery	●	●	●	●	●	****	****	●	●	●	●	●	●
XBOXER Thermal wheel (size 1 to 3)	Heat Recovery	●	●	●	●	●	●	●	●	●	●	●	●	●
XBOXER Run around coil	Heat Recovery	●	●	●	●	●	●	●	●	●	●	●	●	●
ES-OPUS (Not compatible with ES-LCD)	Inline/surface/recessed	●	●	●		●						●	●	

* ESAM, Squif, Twin Squif and Axus have a separate Ecosmart control pack that needs to be hard wired.

** Motor out of airstream.

*** Does not apply to 'NC' (no control) XBOXER units.

**** Supplied by others.

Ecosmart fans and Air Handling Units are pre-programmed and use simple plug and go control interfaces reducing the need for complicated controls.

Ecosmart enables multiple fans to be interconnected & controlled by the same sensors.

Fully BMS compatible using 0-10V interfaces and volt free contacts, simplifying all your control requirements.

Ecosmart ES-OPUS. For units with heating/cooling coils provided with Ecosmart control. An enable signal needs to be provided for heating/cooling to operate ie. ES-LCD, BMS 0-10V and ES-CI.

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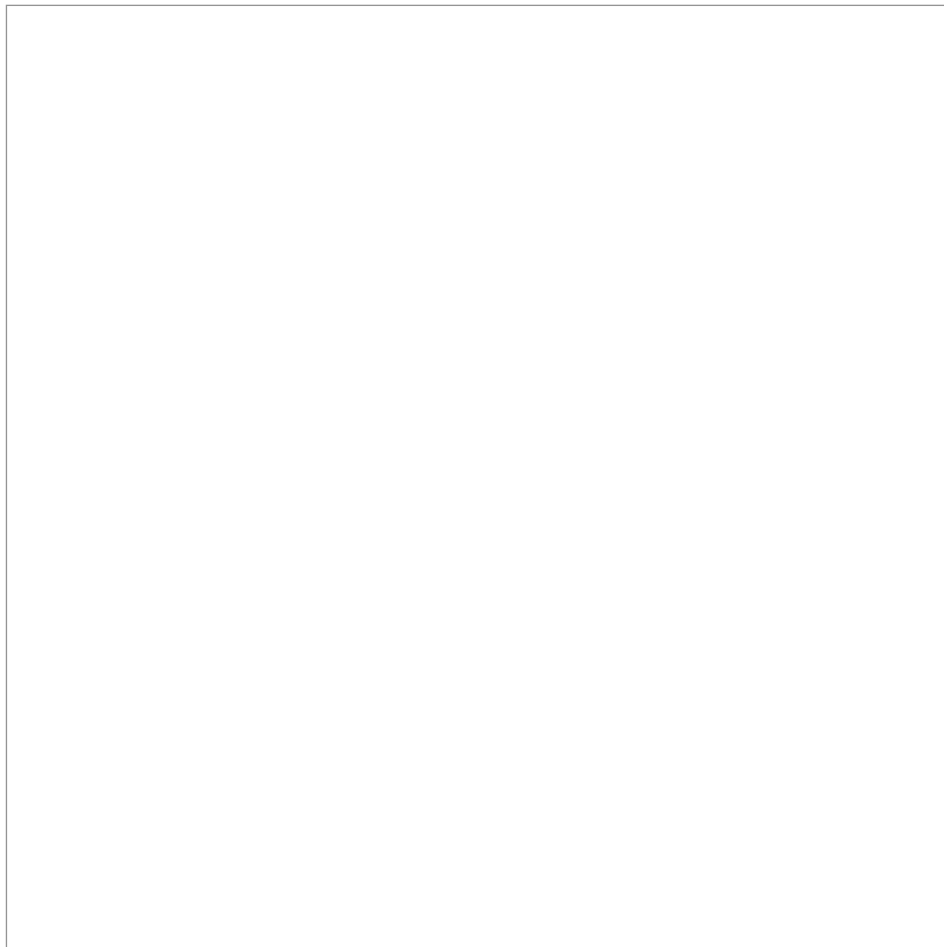
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FAN SELECTOR CD-ROM

A practical and useful tool to assist with the selection of products for your specification.

If the CD-ROM is missing, simply visit www.nuairegroup.com/fanselector and follow the instructions to download. Alternatively, contact Nuaire or your nearest distributor.





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As part of our policy of continuous product development Nuaire reserves the right to alter specifications without prior notice. Telephone calls may be recorded for quality and training purposes.

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