

## VENTILATION SOLUTIONS FOR EXISTING DWELLINGS



## A ventilation manufacturer with unrivalled choice and service

▶ Nuaire is the UK leader in the design and manufacture of fans and ventilation systems. We put our energy into efficient ventilation so you don't waste yours.

Based in South Wales, our factory covers over 25,000m<sup>3</sup>, allowing us to manufacture a wide variety of ventilation products from raw materials to finished goods.

We source almost all of our components from the UK, keeping both our carbon footprint to a minimum and ensuring industry-leading delivery times to customers.

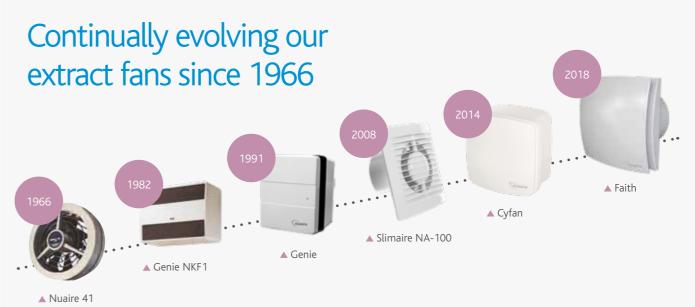
Since our inception in 1966, Nuaire have pioneered a number of ventilation strategies and products widely adopted by the industry, from the twin fan to the Opus residential fans through to the invention of Positive Input Ventilation.



# invention; our PIV history



# extract fans since 1966









## A fast growing problem

• External and internal pollutants can have a significant impact on the quality of air in every home and consequently on occupants' health.

Poor ventilation is a wide-scale problem. It is estimated that one in five UK households are poorly ventilated, leading to problems with streaming windows, mould growth and poor indoor air quality.

Condensation dampness is the major indoor air pollutant caused by modern living. Energy-efficiency measures such as cavity wall insulation and double-glazing make homes warmer by sealing in the heat. But as a result, the humid, stale air becomes trapped inside the home leading to condensation and the appearance of black mould.

Through everyday life (cooking, cleaning, breathing) the average family produces over 17 pints of moisture a day. Condensation forms when this moisture comes into contact with cold surfaces within the home. This condensation will lead to mould growth, which is not only unpleasant but is damaging to the fabric of the building and creates unnecessary costs for the registered landlord in decoration and maintenance.

#### Effects on health

Poor indoor air quality has significant impact on the health and wellbeing of occupants. Studies have firmly linked poor indoor air

ΑCTIVITY	PINTS OF MOISTURE	
Cooking with Gas		5.2
Clothes Washing and Drying		5.1
Showering		1.6
Breathing (4 people)	TTTTT	5.6
DAILY TOTAL		17.5

### Benefits to providing adequate ventilation

FOR THE LANDLORD	FOR THE OCCUPANT
Compliance to ADF and ADL Building regulations	Creates a healthy living environment
Easy Installations	Controls humidity – no more streaming windows and mould
Low life-cycle costs	Extremely low energy products reduce bills
Preserves the building fabric (reducing maintenance costs)	Low noise levels
Maintains long tenancies	Minimal maintenance
Improves tenant wellbeing and health, avoiding legal claims	Addresses harmful indoor air pollutants such as VOCs and Radon gas

quality with a range of undesirable illnesses, such as allergic and asthma symptoms, airborne respiratory infections, and even lung cancer and stroke.

#### The importance of good ventilation

Ventilation is critical to home comfort and improved health. Adequate ventilation improves air quality and rids the home of air pollutants. It controls the moisture levels in the home, preventing condensation dampness and black mould from forming.

These factors combine to enhance the comfort and indoor air quality of the home and ensure a healthy environment. Effective ventilation also contributes to preserving the structural integrity of the home, reducing maintenance costs and adding to the home's value.

On average, occupants spend over 80% of their time indoors so indoor air quality matters.

## How can Nuaire help you?

As the UK's leading ventilation provider we understand your requirements and have staff on hand to help.

Our offices in South Wales manage schedules, orders and can help on technical enquiries. With over 65 external sales staff we are always on hand to help with product information, training or best practice advice.

#### Full ventilation training

If you have a DLO, or subcontract your ventilation installers, Nuaire offers free ventilation training that is BPEC and NICEIC accredited. As active members of numerous industry bodies, Nuaire promotes best ventilation installation practice. As fabric improvements and insulation schemes have been commonplace for many years, it's important to review ventilation when refurbishment occurs.

#### A comprehensive range of products

Nuaire offers a wide range of ventilation products. For renovation of existing buildings, we offer a wide range of axial and centrifugal fans. We also offer 'twin fans' solutions for central ventilation on tower blocks. For planned maintenance on newer homes, we also offer our MEV/MVHR range of fans and spares.

bec 

> Contact your local rep for free

seminars on condensation and mould

- Condensation workshops
- ► Toolbox talk on regulations
- Upkeep and maintenance for MEV and MVHR
- Custom CPD's on request





Excellent support

### VENTILATE THE HOME WITH POSITIVE INPUT VENTILATION (PIV)

## Choosing the right PIV unit

Installed in over 1 million homes in the UK, Positive Input Ventilation (PIV) systems provide a continuous supply of fresh, filtered air into the home through positive pressurisation, creating an environment in which condensation and mould growth cannot exist.

Poor ventilation within Local Authority, Housing Association and tenanted properties is a large and growing problem. Badly ventilated properties lead to problems such as streaming windows, mould growth and poor indoor air quality.

Without adequate ventilation the moisture produced by washing, cooking and bathing remains trapped inside.

### ▼ PIV How does it work?

Moisture and condensation are driven out

The filtered air gently ressurises the home from inside out, forcing out the stale air. Create a healthy living environment

Nuaire invented

PIV over 40

years ago

nproves indoor air quality removing pollutants such as VOCs, keeps out xternal pollutants such as traffic fumes and pollen.

#### No need to open windows to ventilate

Clean, fresh air is continuously drawn through the lofts' natural leakage points, passed through the filters and fed into the property via a central hallway diffuser.

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	DRI-ECO- LC	DRI-ECO- HC	DRI-ECO- LINK-HC	DRI-ECO- HEAT- HCS	DRI-ECO- HEAT- HC	DRI-ECO-3STOREY	DRI-ECO3S-HEAT- HC	DRI-365	FLATMASTER	FLAT2000L/R
With lofts	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~		
Without lofts									$\checkmark$	$\checkmark$
Single storey	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$
Two storey	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			~		
3 storey						$\checkmark$	$\checkmark$			
Works with RH sensor			$\checkmark$		$\checkmark$		$\checkmark$			
Works with CO2 sensor			$\checkmark$		$\checkmark$		$\checkmark$			
Works with 2-way boost switch			$\checkmark$							
Works with 4-way boost switch					$\checkmark$		$\checkmark$			
Setting and control behind diffuser		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$			
Setting and control on unit	$\checkmark$					$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
5 year warranty*	$\checkmark$					~		$\checkmark$	$\checkmark$	$\checkmark$
7 year warranty*		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$			

\*1 year parts and labour, remaining years parts only



### PIV for 2 storey or single storey loft dwellings

▶ The Drimaster-Eco range uses the Positive Input Ventilation principle to provide the home with whole-house ventilation. It involves introducing fresh filtered air into the dwelling at a continuous rate, encouraging movement of air from the inside to outside. This unit it suitable for 2 storey and single storey properties with loft space.

#### Features and benefits for Positive Input Ventilation

- Continuously reduces moisture levels within the home
- Meets Building Regulations
- Extremely low power consumption
- Extremely quiet operation
- Designed to create an easy and non-disruptive installation
- Daily run monitor as standard
- ▶ 7 segment display for visual enhanced controllability
- Very low maintenance requirement

- Can be installed to help reduce Radon gas levels
- Significantly improves the indoor air quality in the home
- Proven to improve tenants' health by reducing allergens within the home
- Protects the fabric of the home by alleviating condensation dampness
- Automatic heat recovery mode
- Up to 7 years' warranty\*



#### **DRI-ECO-HC**

behind the diffuser.



#### **DRI-ECO-LC**

This PIV unit offers the latest energy-saving technology which can reduce energy bills and power consumption in the home. The controls are sited in the loft on the unit.

## **DRI-365**

needed to complete the install:

- DRI365-SOFITKIT
- DRI365-WALLKIT

#### **DRI-ECO-HEAT-HC**

An integral 400W heating element to temper the airflow on entering the property. Suitable for all properties with a loft space, this unique PIV system has controls situated behind the diffuser for ease of commissioning and maintenance checks. The development of new technology also provides additional benefits for both the housing provider and the occupant, relative humidity (RH) and carbon dioxide sensors which will automatically increase the fans speed when the target setting on the sensors are met. This maintains good indoor air quality.



#### **DRI-ECO-HEAT-HCS**

Suitable for all properties with a loft space, this PIV system is a variant of the Dri-Eco-Heat-HC. Integral 400W heating element tempers the airflow on entering the property and this variant is for applications where additions controls and RF compatibility is not required.



#### **DRI-ECO-LINK-HC**

This unit is a standard unit with the added benefit of being compatible with a relative humidity sensor and CO<sub>2</sub> sensor. With suitability for loft installation, this unit also has discrete commissioning and controls behind the diffuser.





DRI365-SOFITKIT

DRI-ECO-RM

Remote monitor

▲ DRI365-WALLKIT

### Sensors available

Kits available



2-way switch



DRI-ECO-CO2 Carbon dioxide sensor



Providing ease of commissioning and install for housing providers when carrying out maintenance checks, this PIV unit has system controls located

Suitable for properties with a loft space, this unit ensures and protects indoor air quality all year round. This energy saving unit introduces fresh cooler filtered air into the home throughout the warmer months, whilst intelligently utilising solar gain from loft space during the colder, ensuring a comfortable living environment throughout the year.

Please note you are required to choose one of the below codes for the additional kit



DRI-ECO-4S 4-way switch



▲ DRI-ECO-RH Relative humidity sensor

## 3 storey loft PIV

▶ Using the same Positive Input Ventilation technology, the following products are suitable for install within 3 storey properties with a loft space. By using an intumescent aluminium diffuser in order to meet fire regulation standards, this range offers whole-house ventilation with improved indoor air quality.





#### DRI-ECO3S-HEAT-HC

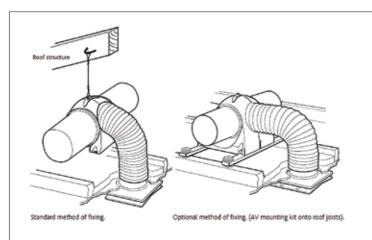
This low energy-unit has a 400W heating element to temper airflow when upon entering the property. This unit has hall controls situated behind the diffuser providing ease of commissioning and maintenance checks and is suitable for installation in 3 storey properties. This unit is compatible with sensors as per standard the DRI-ECO-HEAT-HC unit.



#### **DRI-ECO-3STOREY**

Suitable for 3 storey property application, this unit is a cost-effective solution to enhancing indoor air quality within homes. Controls are situated on the unit with the loft.

### Install application

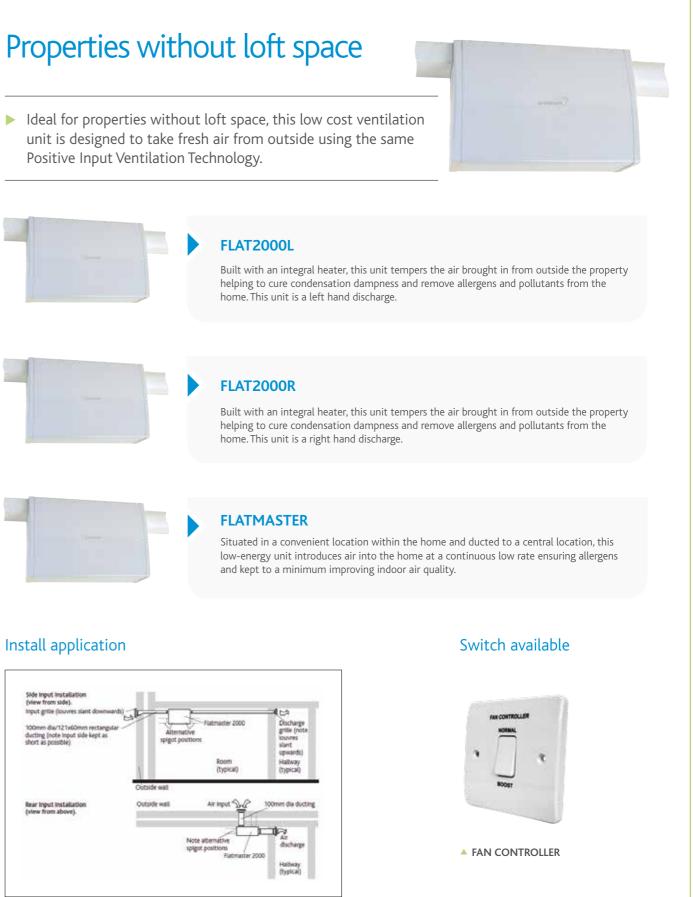


Positive Input Ventilation Technology.



### FLAT2000L

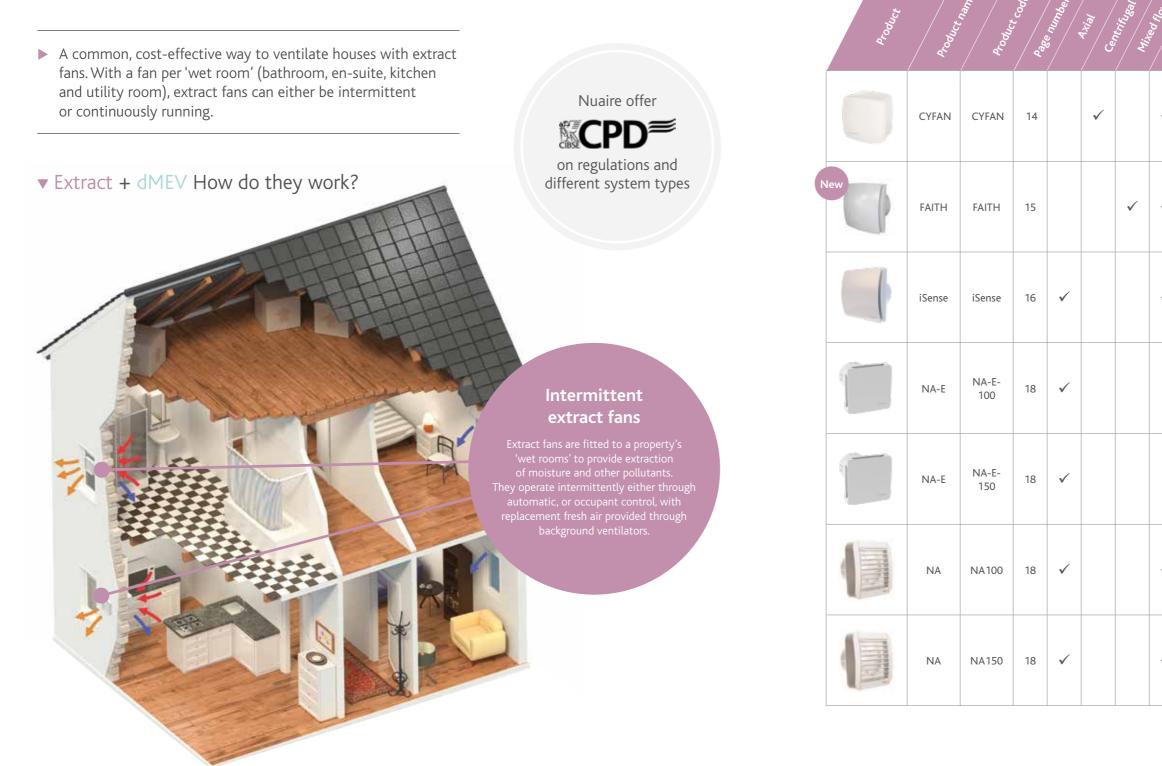
### Install application





## INTERMITTENT EXTRACT FANS (SYSTEM 1) AND CONTINUOUS RUNNING EXTRACT FANS (SYSTEM 3)

## Choosing the right fan





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✓	~	~	~	~	~	~	~	60 l/s	
~		√	~	√	~	~	√	26 l/s	
$\checkmark$		$\checkmark$		$\checkmark$	~	$\checkmark$	$\checkmark$	25 l/s	
	~	$\checkmark$	~	$\checkmark$	~	~		25 l/s	
	~	$\checkmark$		$\checkmark$	~	$\checkmark$		60 l/s	
~		$\checkmark$	~	$\checkmark$	~	~	$\checkmark$	25 l/s	
~		$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	60 l/s	



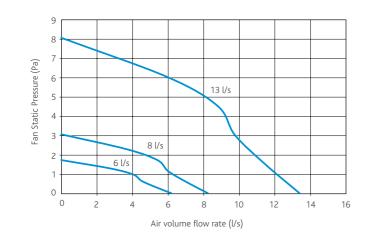
Cyfan allows installers to configure the fan to either continuous or intermittent operation, 230V or 24V SELV, with selected flow and boost rates ensuring the right fan for the application is installed. Furthermore, you only need to stock one fan, providing one perfect solution.

- Designed with tenants in mind:
- Quiet running
- Compact and aesthetically pleasing
- Low energy usage; low running cost
- Easy filterless maintenance

#### Features and Benefits

- Suitable for kitchens, bathrooms, WC or utility rooms
- Recess kit and window kit available
- Side spigot option allows multi adjoining wet-room ventilation
- Run on timer for boost functionality
- ► Daily run monitoring device
- Can be configured to continuous or intermittent operation
- Simple conversion from 230V to low voltage for relevant splash zones
- Low maintenance and life cycle costs
- ▶ 5 years' warranty\*

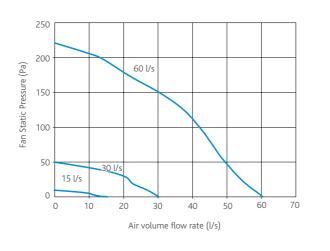
#### Cyfan - Continuous Performance



### Extract Ventilation Rates - ADF Paragraph 5.1a

Room	Intermittent extract	Continuous extract
KOOITI	Minimum rate	Minimum high rate
Kitchen	30 l/s adjacent to hob, or 60 l/s elsewhere	13 l/s
Utility room	30 l/s	8 l/s
Bathroom	15 l/s	8 l/s
Sanitary accommodation	6 l/s	6 l/s

#### Cyfan - Intermittent Performance



## EXTRACT FANS SYSTEM 3



The Faith extract fan has been specifically design meet the requirements of Social Housing. Compa filterless, this continuously-running fan provides e efficient ventilation and comfort for your tenants

With the well-being of your tenants in mind, Faith's technology delivers continuous ventilation and maintains the correct amount of airflow, providing a healthy living environment.

Using the latest technology, Faith offers a daily run monitor as standard to enable landlords to monitor operational use.

#### th ai

#### Features and Benefits

- Night time delay and intelligent run-on timer saves energy and prevents noise disturbance
- Intelligent and energy-saving humidity tracker slowly boosts the fan by measuring humidity levels
- Low maintenance and life cycle costs cost-effective ventilation solution
- Daily run monitor records tenants' operation

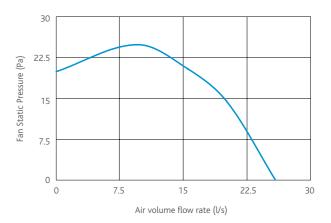
Extract Ventilation Rates - ADF Paragraph 5.1a						
Room	Continuous extract					
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Kitchen	13 l/s					
Utility room	8 l/s					
Bathroom	8 l/s					
Sanitary accommodation	6 l/s					



Smart hnology	New		
ed to act and energy- s.	New		
	locking facility	nubire	

Faith is a continuously-running extract fan that has been designed with the DLO or contractor in mind offering ease of install with a simple and quick set-up.

- ▶ Wall, ceiling and window mounted fits every application
- Quiet and unobtrusive tenant acceptability
- 230V and SELV versions
- ▶ IPX4 suitable for all zones
- ▶ 5 years' warranty\*



#### Faith - Air Performance

### EXTRACT FANS SYSTEM 3

## iSense (dMEV)

▶ iSense is a compact and stylish, continuous running ventilation solution designed to meet system 3 Part F & L building regulations for all wet room applications. Its intelligent and smart technology has constant flow operation, ensuring the set desired flow is delivered to provide a healthy living environment for the occupants.

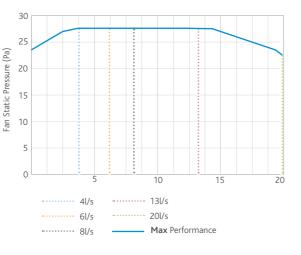
#### Features and Benefits

- ► SAP PCDB listed SFP down to 0.13 w/l/s
- Part F (system 3) & Part L Compliance
- Simple set up and commissioning
- Designed to ultra low noise levels
- Constant flow operation ensuring desired airflow is delivered
- ► Effective technology to create a healthy living environment
- ▶ 3 minute night time delay saves energy and prevents noise disturbance
- ▶ Intelligent run-on timer operates to the users lifestyle via 'auto' mode or fully adjustable
- Standard and humidistat models
- ► IPX4 rated
- ▶ 5 year warranty\*

### SAP PCDB Table **v**

Unit configuration	Location	iSense SFP Rigid duct	iSense SFP Flexi duct	
Thru wall	Kitchen	0.13	0.15	
Thru wall	Wet room	0.15	0.20	Product Codes
In-room	Kitchen	0.20	0.20	iSense Standard model iSense-HT
In-room	Wet room	0.19	0.24	Humidistat model

### iSense - Air Performance V



SAP PCDB

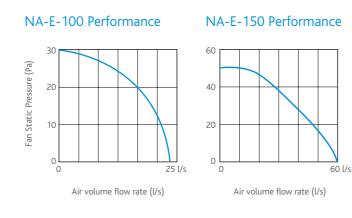
Tested through the wall with 300mm rigid duct and a low resistance grille.

### EXTRACT FANS SYSTEM 1 AND 3

### Domestic axial fans

▶ Nuaire's latest range of axial fans are a simple and costeffective ventilation solution for houses and apartments. This range is ideal for air-extraction in bathrooms and toilets, as well as utility rooms and kitchens.

Suitable to extract stale air directly to the outside or through short length ducting, the units can be wall/panel, ceiling and window mounted.



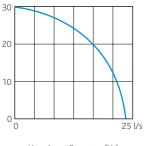
Code	Single speed	Twin speed	4"		Pull cord	Timer	Humidistat	SELV	230V	Window mounted
NA-E-100	$\checkmark$		$\checkmark$						$\checkmark$	
NA-E-100H	$\checkmark$		$\checkmark$			$\checkmark$	$\checkmark$		$\checkmark$	
NA-E-100HPC	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
NA-E-100PC	$\checkmark$		$\checkmark$		$\checkmark$				$\checkmark$	
NA-E-100T	$\checkmark$		$\checkmark$			$\checkmark$			$\checkmark$	
NA-E-100-12	$\checkmark$		$\checkmark$					$\checkmark$		
NA-E-100H-12	$\checkmark$		$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$		
NA-E-100HPC-12	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
NA-E-100PC-12	$\checkmark$		$\checkmark$		$\checkmark$			$\checkmark$		
NA-E-100T-12	$\checkmark$		$\checkmark$			$\checkmark$		$\checkmark$		
NA-E-150	$\checkmark$			$\checkmark$					$\checkmark$	
NA-E-150T	$\checkmark$			$\checkmark$		$\checkmark$			$\checkmark$	
NA-E-150PC	$\checkmark$			$\checkmark$	$\checkmark$				$\checkmark$	
NA-E-150H	$\checkmark$			$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	
NA 100XPC		$\checkmark$	$\checkmark$		$\checkmark$				$\checkmark$	$\checkmark$
NA 100XPC-12		$\checkmark$	$\checkmark$		$\checkmark$			$\checkmark$		$\checkmark$
NA 150XPC		$\checkmark$		$\checkmark$	$\checkmark$				$\checkmark$	$\checkmark$

\* 1 year parts and labour, remaining years parts only



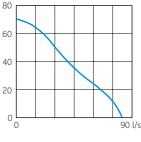
Low-energy single and axial fans

NA-100 Performance



Air volume flow rate (l/s)

NA-150 Performance



Air volume flow rate (l/s)

# TWIN FAN OPTIONS FOR TOWER AND MULTI OCCUPANCY BUILDINGS **PROVIDING VENTILATION 24/7**



Airevolve

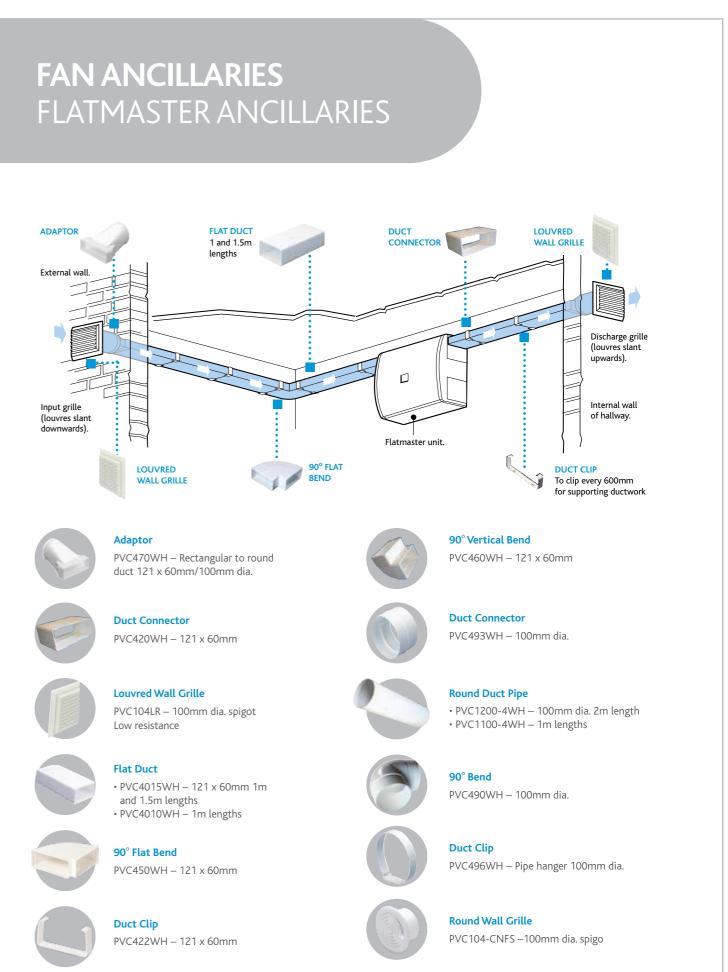
▶ Nuaire offer a wide range of commercial ventilation solutions, some of which are suitable for existing residential dwellings. In many inner city locations, high rise buildings are ventilated with 'Twin Fans' where a central system is positioned on a roof.

#### Airevolve twin fan (up to 0.18 m 3/s)



- ▼ Side discharge grille







## **FAN ANCILLARIES** CYFAN AND FAITH ANCILLARIES



Cyfan-WKIT Window kit for through window installation





Cyfan-WALLKIT6-WH

Cyfan-WALLKIT-WH

inch in-room ducting kit

6 inch wall kit for Cyfan unit

Please enquire for alternative colours

Telescopic 5 inch pipe C/W louvred outlet

Cyfan-Inroom-Kit4 / Cyfan-Inroom-Kit5

(white) no fly screen so low resistance



Cyfan-RKIT Recess kit for Cyfan



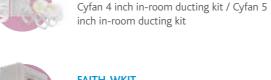
Cyfan-DKIT Sub spigot kit for Cyfan. Comprises of 50mm (3m) hose, connection spigots and filters inlet grill



Cyfan-SWP Cyfan Wall Plate, to fit existing 223mm Width v 275mm length



Cyfan Wall Plate, to fit existing 335mm Width x 255mm length



FAITH-WKIT Window kit for Faith unit







PVC104LR – 100mm diameter

PVC104LR – 100M diameter



• PVC501WH – 201 x57mm brick with shutter • PVC505NS - 201 x57mm brick no shutter



**Double Air Brick** 

Air Brick

PVC905WH – 204 x60mm double air brick

For fan ancillaries details for Faith and Axial fans please contact Nuaire on 02920 858200 or visit www.nuaire.co.uk/residential







#### Wall Mounting Air Brick Weather Louvre

PVCWALL/6 – 100mm diameter spigot



#### High Rise

PVC2447T – 100mm diameter spigot The cowl can be installed from the inside of the dwelling



#### **Slimduct Silencer**

- PVCSIL -500 204 x 60mm, 0.5m
- PVCSIL -1000 204 x 60mm, 1m
- PVCSIL-1500 204 x 60mm, 1.5m



#### **Dino Ties**

DT33



#### Gravity Shutter Wall Outlet

- PVC100WH 100mm diameter spigot
- PVC101WH 110 x 54mm duct
- PVC506WH 125mm diameter spigot



#### Cowled Wall Outlet With Damper

- PVC102WH 100mm diameter spigot
- PVC102WH 110 x 54mm duct
- PVC502WH 125mm diameter spigot

### **DUCTING ANCILLARIES AND FIRE PRODUCTS**

### **Duct Accessories**

• PVCDSEAL – Ducting sealant • PVC50TP45 – Aluminium Duct Tape 45m • PVCFSEAL – Intumescent Duct Sealant



**Circular Fire Damper** • CFD-100-E60S - 100m • CFD-125-E60S - 125mm • CFD-160-E60S - 160mm



#### Circular Fire Damper Air Valve

• V-FD100-E60S - 100mm • V-FD125-E60S – 125mm, Wall mount only • V-FD125-125 – 125mm, Ceiling mount only

#### Fire Wrap

• FW110X54T – 110 x 54mm Firemm Damper • FW204X60T - 204 x x60mm Fire Damper

- FW220X90T 220 x 90mm Fire Damper
- PVC488T 100mm Fire Damper
- PVC588T 125mm Fire Damper
- PVC688T 150mm Fire Damper

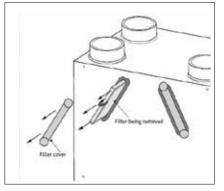
### SPARE FILTERS FOR DRI-ECO, FLATMASTER, MEV & MVHR





DRIPOS2001-FILTERKIT / **DRI-ECO FILTERKIT** 

**MEV-G2-FILTERKIT** 

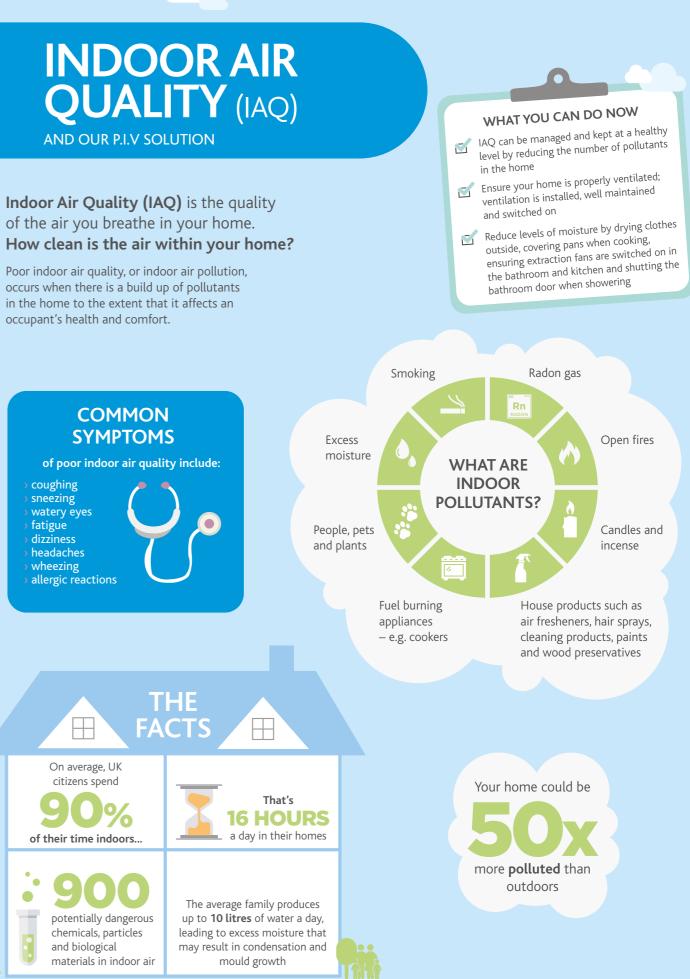


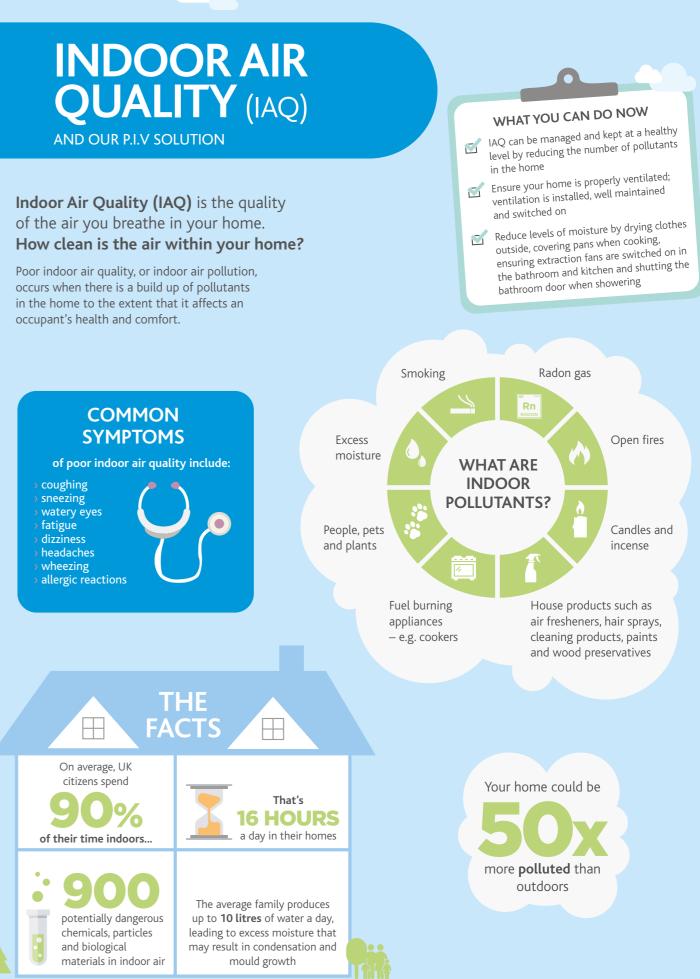


**MVHR-ECO2-FILTERKIT** MVHR-WH1-FILTERKIT/ MVHR ECO3-FILTERKIT



MVHR-WH1-FILTERKIT/ MVHR-ECO4-FILTERKIT







NUAIRE Western Industrial Estate Caerphilly CF83 1NA

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After sales technical support: Tel: +44(0)29 2085 8400 Fax: +44(0)29 2085 8555 technicalsupport@nuaire.co.uk www.nuaire.co.uk

#### 11.19

8080 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.