

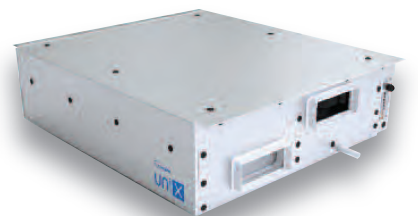


# VENTILATION FOR STUDENT ACCOMMODATION



**STUDENT  
ACCOMMODATION**  
CONFERENCE & AWARDS  
FINALIST

Featuring the **NEW UniX** range



## VENTILATION FOR STUDENT ACCOMMODATION

NUAIRE UNDERSTANDS THE MANY CHALLENGES AND REGULATIONS THAT MODERN BUILDING VENTILATION MUST MEET...**AND OUR TECHNICAL TEAM ARE ON HAND TO ASSIST WITH PRODUCT SELECTIONS.**

### DESIGN\* & TECHNICAL ESTIMATING SUPPORT

The correct system design is vital to ensure that ventilation products perform to their design intent.

Our experienced team of technical design estimators are skilled at selecting the correct product and system layout to ensure that, once installed, the system will deliver the required airflow.

Correct system layouts will ensure that the product is not noisy and inefficient. Nuaire's technical design estimators will provide clear guidance to ensure that installation is straight forward and in compliance with Part F Building Regulations 2010.

\*Nuaire require a full set of DWG's, Acoustic report & Fire Strategy.



### FAN SELECTOR

Nuaire's Fan Selector is a practical and helpful tool to assist with the selection of ventilation products that, software provides detailed datasheets comprising of efficiency, performance, acoustics, wiring and specification.

The software allows the data to be exported in Microsoft® Excel or DWG format for AutoCAD®. To download Fan Selector simply visit [www.nuaire.co.uk/fanselector](http://www.nuaire.co.uk/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.

### REVIT® COMPATIBLE BIM MODELS

Nuaire has a dedicated BIM team offering libraries of Revit® compatible BIM models to meet customers' exact specifications.

Nuaire's libraries offer collision detection, connection positions and weights. Project specific performance criteria and support for design, project management and building operations can be requested which will result in improved design efficiency. To download Nuaire's Revit® compatible BIM models simply visit <https://bim.nuaire.co.uk/> and click on the library.

### AFTERSALES SERVICE & SITE SUPPORT

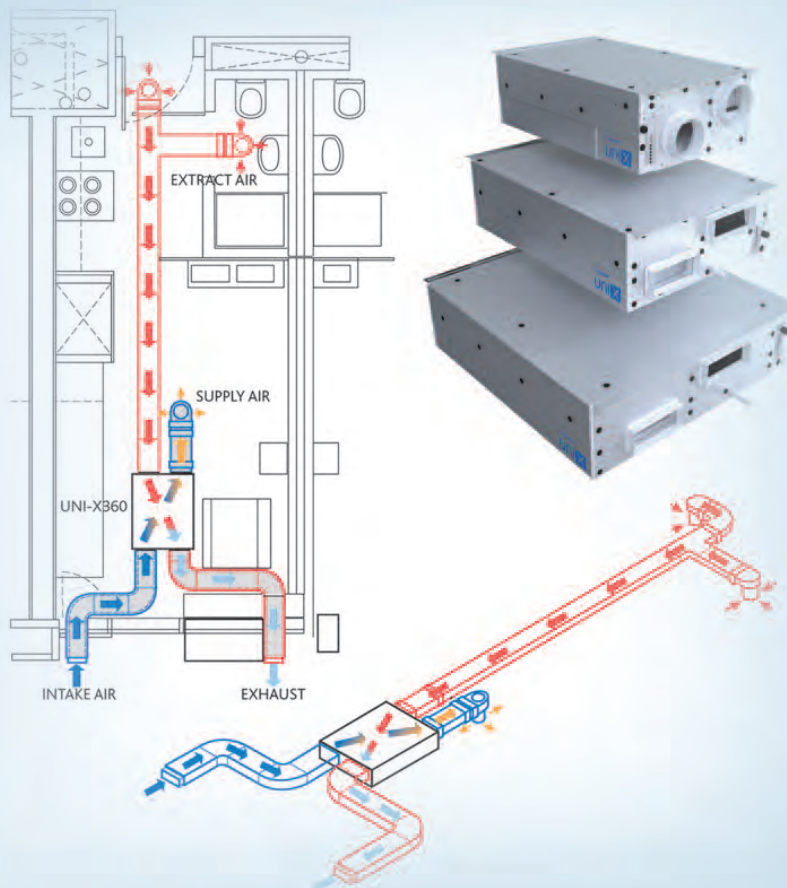
Nuaire prides itself on the quality of the design and manufacture of all its products. All products are tested prior to customer delivery. If customers do experience an issue on site, our team of highly knowledgeable Technical Support staff will provide expert advice and guidance on all of our products if an issue should arise.



Our Technical Support staff are available to answer all product queries and if necessary provide an on-site support engineer. **For further details on any of the above call Nuaire on 029 20 858 200.**

## CONTENTS

<b>2 - 3</b>	<b>TECHNICAL &amp; DESIGN SUPPORT</b>
<b>4 - 5</b>	<b>UNI-X APPLICATION GUIDE</b>
<b>6 - 7</b>	<b>UNI-X FEATURES &amp; BENEFITS</b>
<b>8 - 9</b>	<b>UNI-X SWITCH &amp; SENSORS</b>
<b>10 - 13</b>	<b>UNI-X220 PERFORMANCE &amp; TECHNICAL DETAILS</b>
<b>14 - 17</b>	<b>UNI-X360 PERFORMANCE &amp; TECHNICAL DETAILS</b>
<b>18 - 21</b>	<b>UNI-X580 PERFORMANCE &amp; TECHNICAL DETAILS</b>
<b>22</b>	<b>UNI-X WIRING</b>
<b>23</b>	<b>UNI-X CONSULTANTS SPECIFICATION</b>
<b>24 - 25</b>	<b>EXTRACT &amp; HEAT RECOVERY PRODUCT SELECTOR</b>
<b>26 - 27</b>	<b>Q-AIRE CARBON FILTRATION</b>
<b>28 - 29</b>	<b>Q-AIRE SUPPLY &amp; EXTRACT VALVES</b>
<b>30 - 31</b>	<b>Q-AIRE IAQBOX-S</b>
<b>32</b>	<b>Q-AIRE IAQBOX-D</b>
<b>33</b>	<b>Q-AIRE IAQBOX CONSULTANTS SPECIFICATION</b>



WITH THE INCREASE IN STUDENT NUMBERS COMES THE NEED FOR STUDENT ACCOMMODATION COVERING ALL TYPES OF PROPERTIES **FROM SPECIFICALLY DESIGNED STUDENT BLOCKS THROUGH TO INDIVIDUAL REFURBISHED HOUSES.**

Student accommodation can feature many configurations including communal lounges and kitchens, individual bedroom/study areas through to 12 bed clusters.

Nuaire appreciates that Student accommodation often requires unique solutions.

With this in mind, Nuaire has developed a wide range of ventilation products to ensure the highest level of indoor air quality with the lowest level of occupier interaction.

#### **MECHANICAL EXTRACT WITH HEAT RECOVERY FOR 'LIVING' AND COMMUNAL AREAS: (UNI-X, XBC & MRXBOXAB-ECO-LP1).**

Heat recovery systems offer efficiency and control over the air quality and volume within the accommodation. Providing tempered air into 'living' areas whilst extracting moisture laden air from 'wet' areas. Heat recovery is ideal for student and other multi-storey accommodation.

#### **MECHANICAL EXTRACT FOR BATHROOMS, TOILETS AND KITCHENS: (GENIE, XS, AIREVOLVE AVS, AVT, MEVDC, OPUS & DAVE).**

Nuaire offers a wide range of extract fans for wall, window, roof and ceiling/void applications. Fans can be located in wet rooms, kitchens, utility areas and roof, extracting from wet areas and kitchens whilst providing continuous fresh air via trickle ventilators.

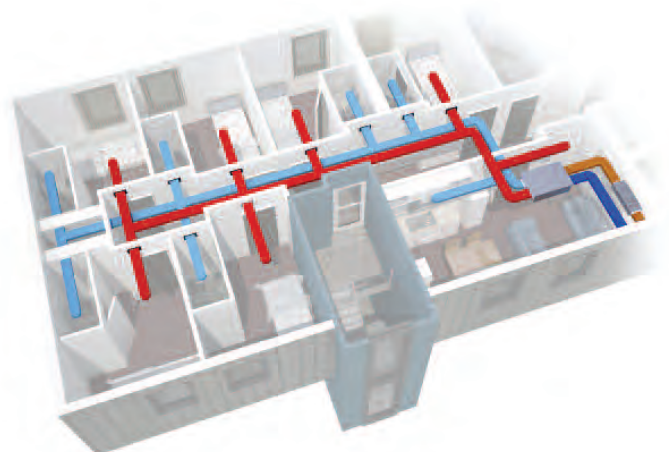
#### **CONSTANT PRESSURE FOR MULTI-ROOM VENTILATION: (AVT-CP, AVS-CP, XBC & BOXER BPS).**

Why ventilate empty rooms? Constant pressure is ideal for student accommodation. A central extract system provides all the necessary extraction, via a central fan, which is normally positioned on a roof and unique multi-position CVD dampers or NRG grilles which ensure operation only when room is occupied.



#### **TYPICAL LAYOUTS**

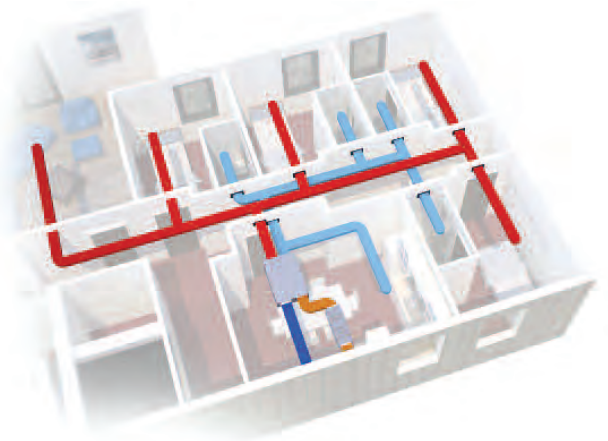
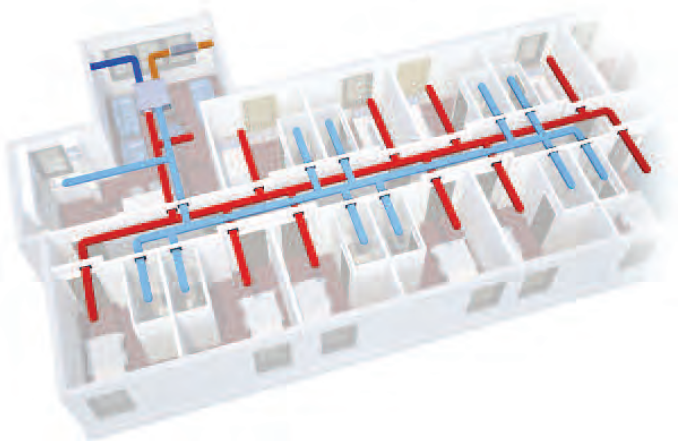
**UNI-X360. Up to 8 cluster (plus kitchen/communal living space).**





UNI-X580. Up to 12 cluster (plus kitchen/communal living space).

UNI-X220. Up to 4 cluster (plus kitchen/communal living space).



# uniX MECHANICAL VENTILATION WITH HEAT RECOVERY

UNI-X is a range of high performance heat recovery units offering efficiency and control over the air quality and volume within the accommodation.

The units provide tempered air into the 'living' areas whilst extracting stale moisture-laden air from 'wet' areas.

**UNI-X Range is ideal for Student accommodation and other applications such as meeting rooms and offices.**

#### ■ HIGH EFFICIENCY HEAT EXCHANGER -

Counter flow heat exchanger with efficiencies up to 90% (Eurovent Certified)

#### ■ LOW SPECIFIC FAN POWER -

High efficiency ErP 2018 EC blowers with IP54 rating and stepless speed control

#### ■ CLASS LEADING NOISE LEVELS -

Unique casing design with internal profiling and external acoustic cladding ensures lower noise levels

#### ■ AUTOMATIC 100% BYPASS FACILITY -

Guarantees the delivery of fresh, clean air in the summer months, activated +20 degrees C

#### ■ SIMPLE CONTROL -

In-built control, factory tested to provide trickle/boost facility. Choice of boost switches available

#### ■ SPACE SAVING -

Low profile unit designed for ceiling voids. All units have a maximum depth of 295mm

#### ■ EASY TO MAINTAIN -

G3 filters fitted as standard to both supply & extract air paths and can be accessed from underside of unit. Carbon filter options are available, see page 20

#### ■ QUICK TO INSTALL -

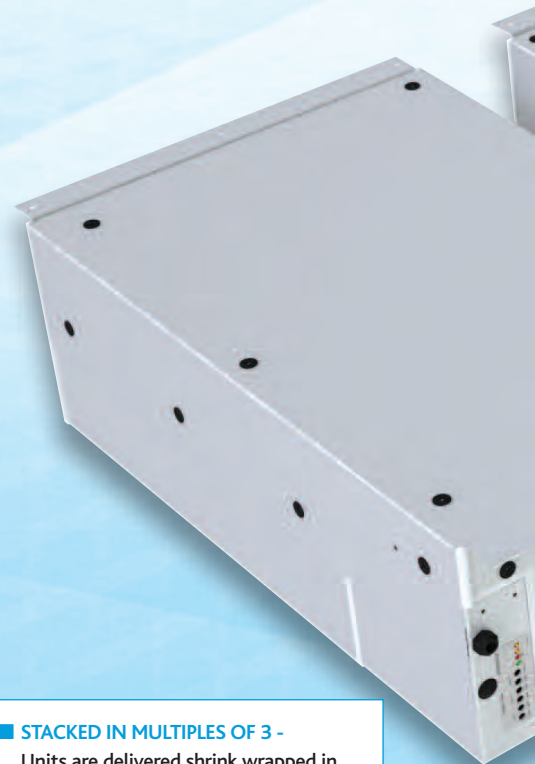
An adhesive 'positioning template' is supplied with every unit to ensure a quick installation

#### ■ PEACE OF MIND -

UNI-X range has a 2 year warranty

#### ■ INSTALLATION TEMPLATE -

A mounting template is provided with every UNI-X unit.



#### ■ STACKED IN MULTIPLES OF 3 -

Units are delivered shrink wrapped in multiples of 3 to ease manoeuvrability on site.



# uniX

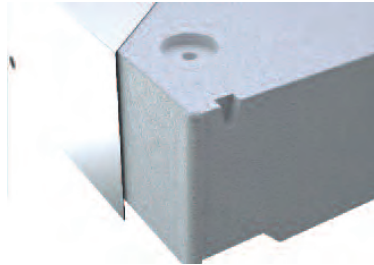
■ **INTEGRAL MOUNTING BRACKET AS STANDARD** -

Helps reduce installation time.



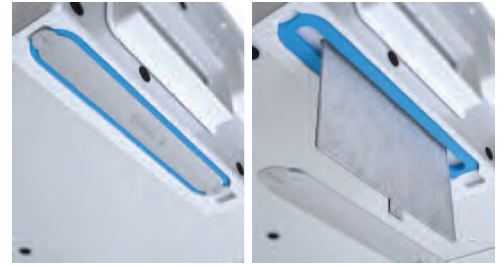
■ **CLASS LEADING NOISE LEVELS** -

Unique rigid casing design with acoustic cladding.



■ **G3 FILTERS AS STANDARD** - Can be easily accessed

from underside of unit via two moulded filter retainers.



**UNI-X220**

Up to 4 cluster (plus kitchen/communal living space).

**UNI-X360**

Up to 8 cluster (plus kitchen/communal living space).

**UNI-X580**

Up to 12 cluster (plus kitchen/communal living space).

■ **UNITS ARE NOT HANDED** -

The condensate pipe is positioned at the front of the unit. Condensate pump ancillary available contact Nuair.



MVHR-DRAIN is available as an ancillary (see page 45 for details).

■ **UNI-X SPIGOTS** - UNI-X units are available with

either rectangular spigots (220 x 90mm) (Code example UNI-X220) or circular spigots (Ø150mm) (Code example UNI-X220-C) as standard.



## UNI-X STANDARD CONTROL

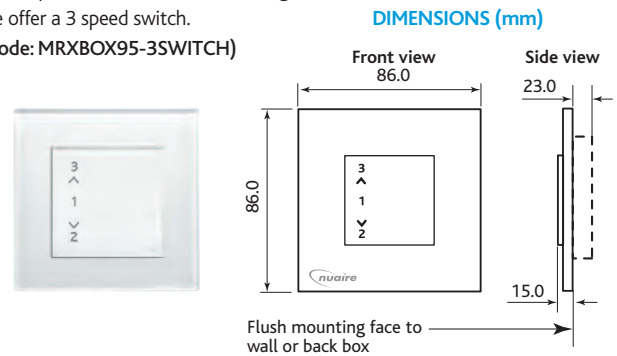


The UNI-X control is pre-wired, factory fitted, factory tested and incorporates the following functionality:

- Integrally mounted within the fan unit on purpose-made PCB
- Independent control of 3 supply and extract flow rates. Controls can be used to set trickle, boost and maximum flow rates
- Integral fan failure indication
- Integral S/L terminal for maximum set speed, from remote switch e.g. plate switch
- Integral S/L terminal for boost set speed, from remote switch, e.g. light switch
- Integral heat exchanger frost protection
- Discrete daily run monitor

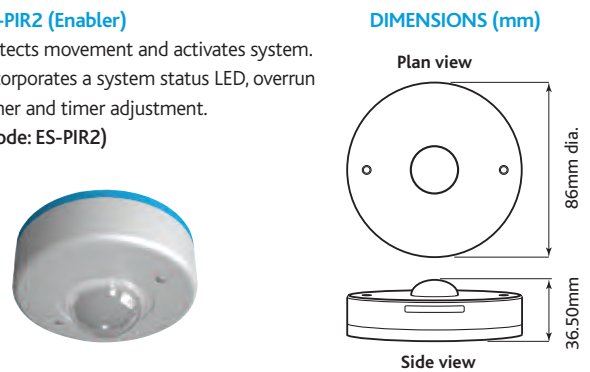
## UNI-X 3 SPEED SWITCH

For simple control and commissioning we offer a 3 speed switch.  
(Code: MRXBOX95-3SWITCH)



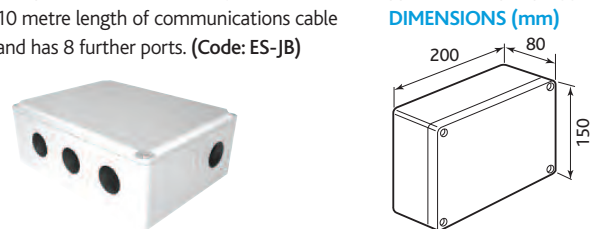
## ES-PIR2 (Enabler)

Detects movement and activates system. Incorporates a system status LED, overrun timer and timer adjustment.  
(Code: ES-PIR2)



## ES-JB JUNCTION BOX

Compatible with Ecosmart System this unit is supplied with a pre-plugged 10 metre length of communications cable and has 8 further ports. (Code: ES-JB)



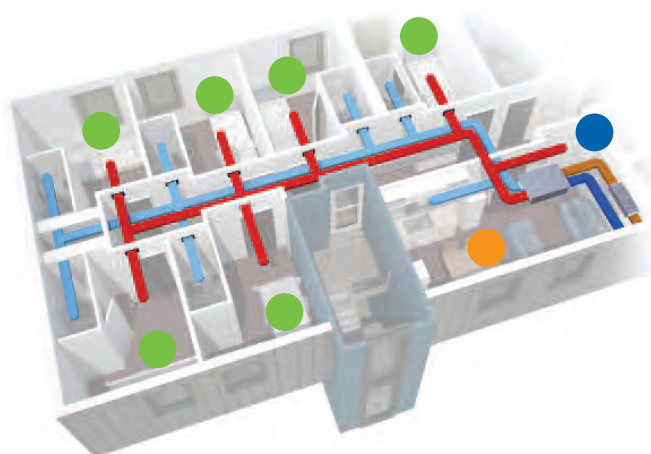
(Maximum of two ES-JB's per UNI-X unit which provides 16 available ports for sensors).

## TYPICAL LAYOUTS - with suggested switch, sensors & lighting circuit

### COLOUR KEY: SWITCH & SENSORS & LIGHTING CIRCUIT

- UNI-X 3 SPEED SWITCH ●
- BOOST SWITCHES ●
- ES-PIR2 ●
- ES-AVI2 ●
- ES-HUMIDISTAT2 ●
- LIGHTING CIRCUIT ●

6 bed cluster (plus kitchen/communal living space).





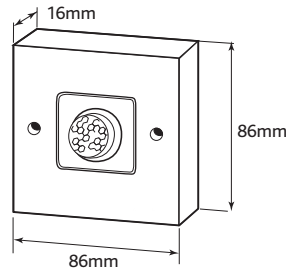
# uniX UNI-X STANDARD CONTROL SWITCH & SENSORS

## PIR SENSOR WITH RUN-ON TIMER

Passive Infra Red (P.I.R) movement detector. (Code: 230-PIR)



### DIMENSIONS (mm)

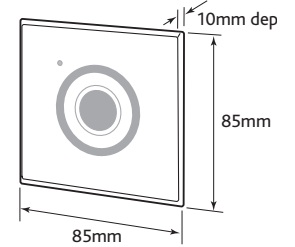


## BOOST SWITCHES

To boost from LOW to HIGH speed. Boost switches settable between 2 minutes and 120 mins (2 hrs). Illuminated push button run-on timer switch. (Code: UNI-X-BT). Illuminated touch sensor button run-on timer switch. (Code: UNI-X-TT)



### DIMENSIONS (mm)

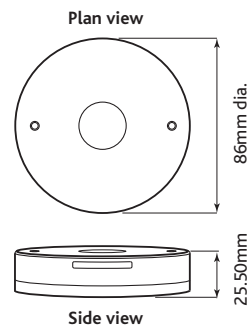


## ES-AV12 (Enabler)

When fan failure occurs the AV1 will flash a warning. Supplied with pre-plugged 10m length of communication cable. (Code: ES-AV12)



### DIMENSIONS (mm)

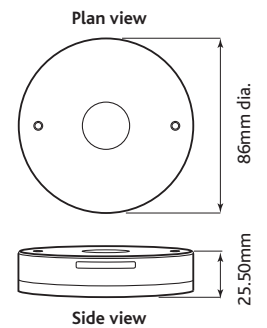


## ES-HUMIDISTAT2 (Enabler)

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. (Code: ES-HUMIDISTAT2)

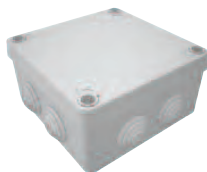


### DIMENSIONS (mm)

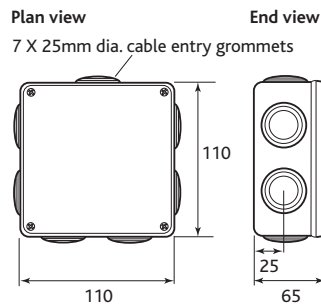


## ES-VF

Volt free relay box. Includes 10m length of communication cable (Code: ES-VF)



### DIMENSIONS (mm)

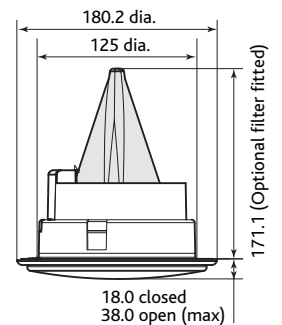


## Q-AIRE FILTERED INLET/EXTRACT AIR VALVES (Ø 125mm)

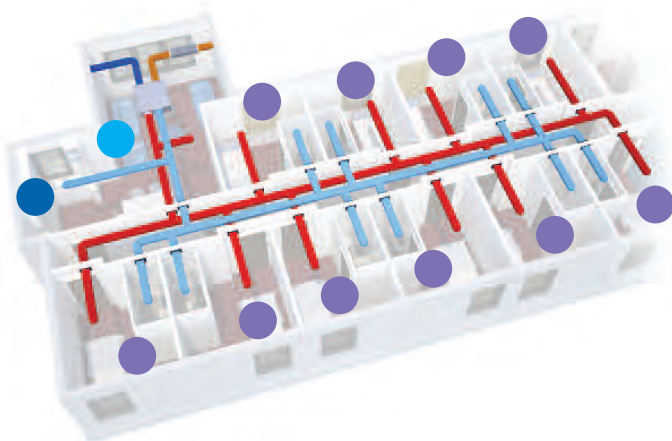
Adjustable, lockable with no adjustment after a filter change. (Codes: Q-AIRE-EV125, EV125F & EV125FH)



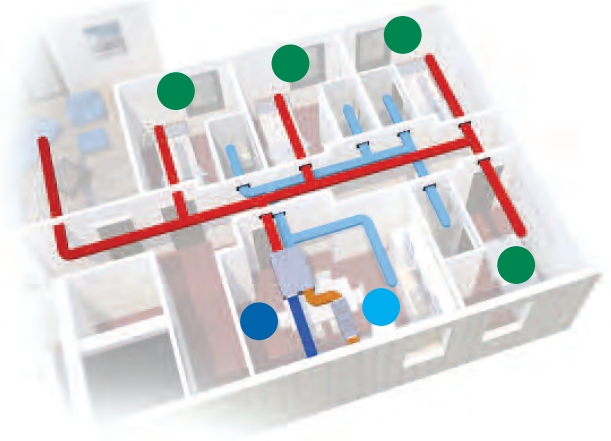
### DIMENSIONS (mm)



10 bed cluster (plus kitchen/communal living space).

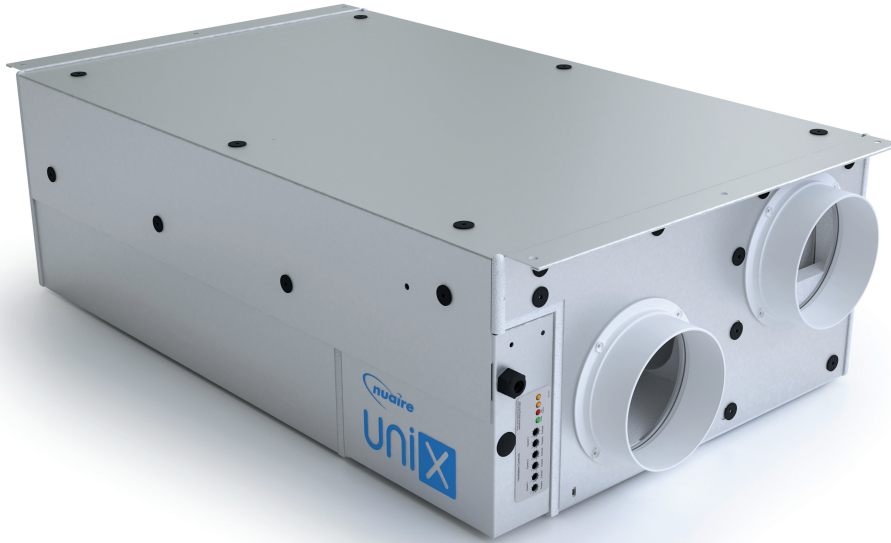


4 bed cluster (plus kitchen/communal living space).

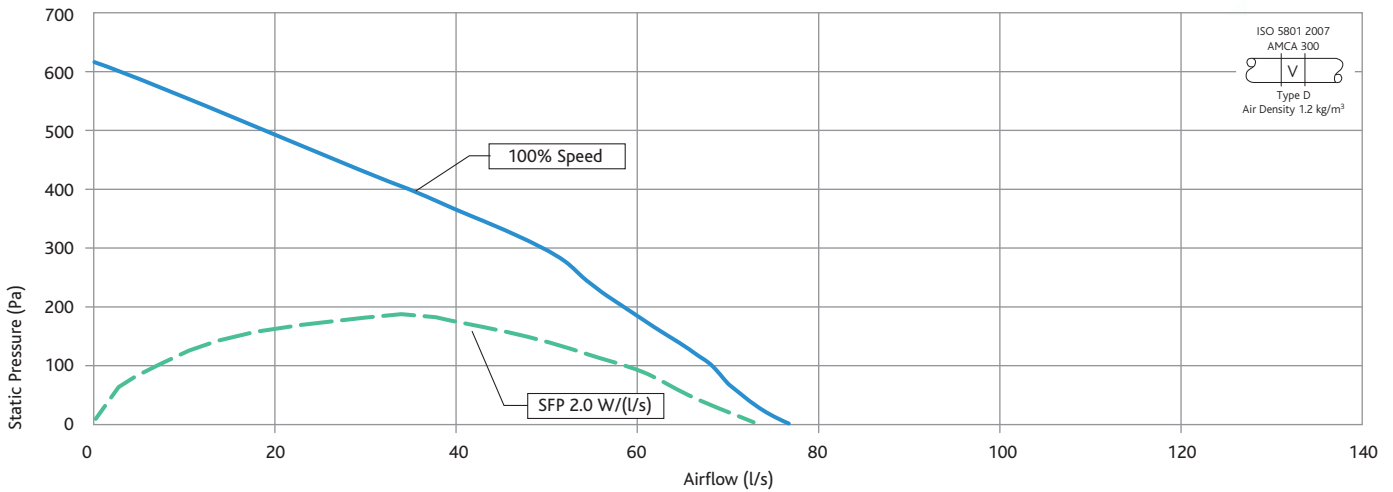




# UNI-X220 PERFORMANCE & TECHNICAL DETAILS



## UNI-X220 RECTANGULAR SPIGOTS UNIT PERFORMANCE



## UNI-X220 RECTANGULAR SPIGOTS UNIT - ACOUSTIC DATA

Fan Code	Type	Speed	Volume Flow (l/s)	Fan Static Pressure (Pa)	Sound Power Levels re 1pW (Hz)								(dBA@3m)
					63	125	250	500	1k	2k	4k	8k	
UNI-X220 (Maximum Rectangular)	Open Extract	100%	45	75	54	54	60	59	47	46	36	33	
	Open Supply	100%	45	75	54	50	58	54	49	44	34	28	
	Breakout	100%	45	75	53	53	59	63	40	34	24	18	39

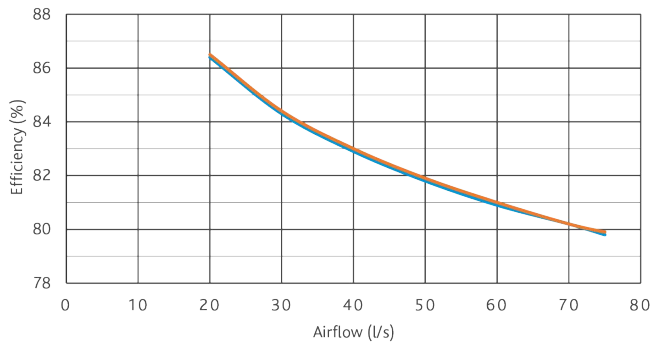
## UNI-X220 EXAMPLE SELECTIONS - For further details please refer to Nuaire Fan Selector ([www.nuaire.co.uk](http://www.nuaire.co.uk))

No. of beds	Plus kitchen/living	Duty	PA	SFP	dBa
2 Bed	1	29 l/s	75 Pa	0.9	36
3 Bed	1	37 l/s	75 Pa	1.1	37
4 Bed	1	45 l/s	75 Pa	1.3	39

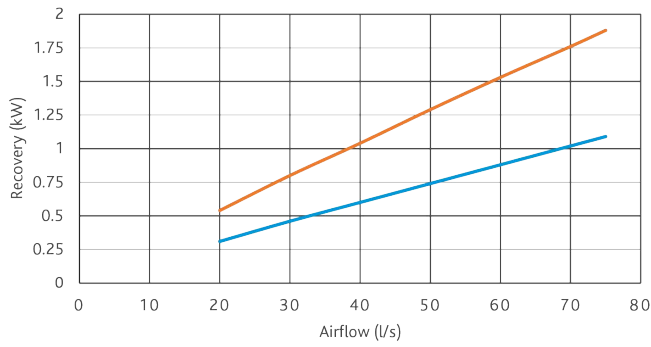
## UNI-X220 TECHNICAL DATA

Fan Code	Voltage (V AC)	Input power (kW)	FLC/SC (A)	Fan Speed (RPM)	Unit Weight (kg)	Pallet/Crate Dimensions (Stack of 3) H x W x L (mm)
UNI-X220	230	0.17	1.32	3200	40	1107 x 572 x 1003

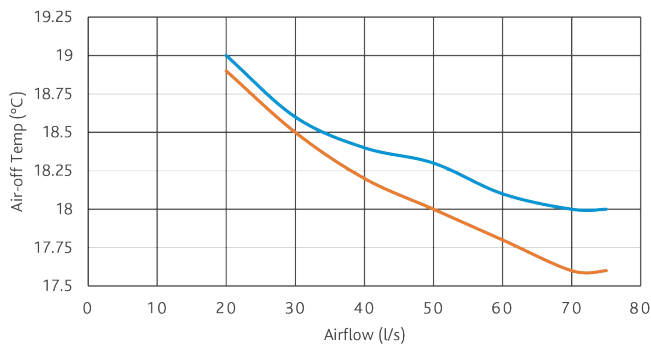
### UNI-X220 HEAT EXCHANGER EFFICIENCY



### UNI-X220 HEAT RECOVERY

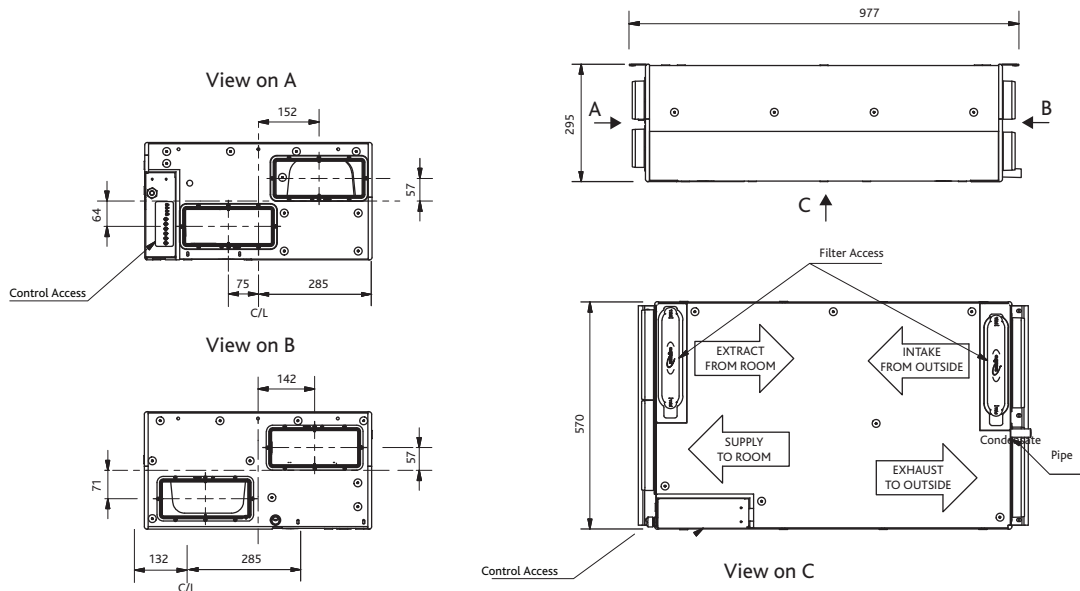


### UNI-X220 AIR-OFF TEMPERATURES



### UNI-X220 RECTANGULAR SPIGOTS (220 x 90mm)

#### UNIT DIMENSIONS

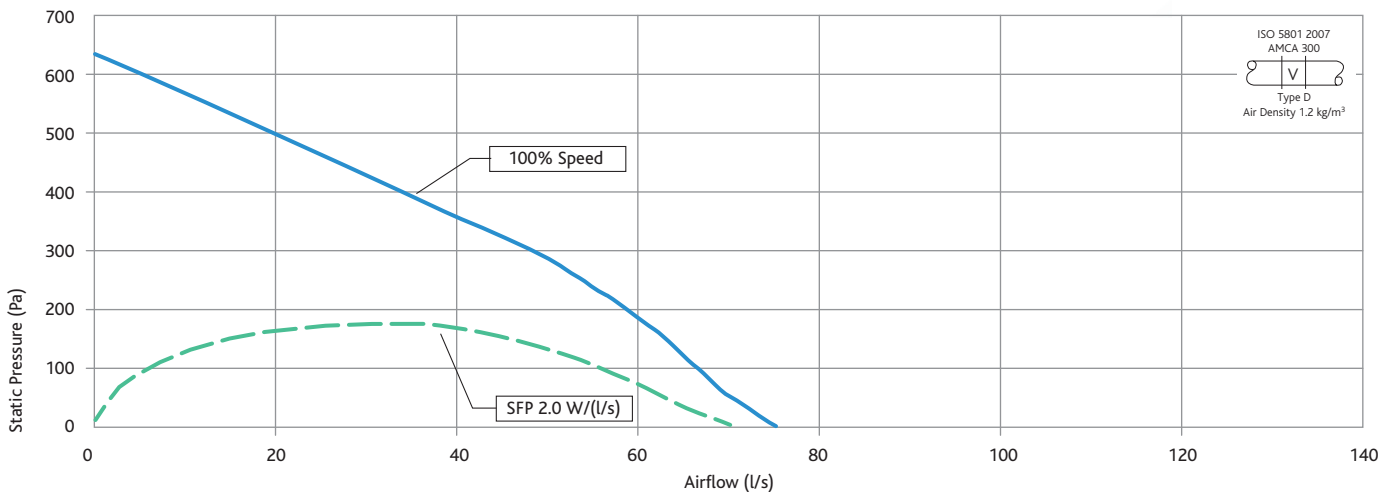




# UNI-X220-C PERFORMANCE & TECHNICAL DETAILS



## UNI-X220-C CIRCULAR SPIGOTS UNIT PERFORMANCE



## UNI-X220-C CIRCULAR SPIGOTS UNIT - ACOUSTIC DATA

Fan Code	Type	Speed	Volume Flow (l/s)	Fan Static Pressure (Pa)	Sound Power Levels re 1pW (Hz)								(dBa@3m)
					63	125	250	500	1k	2k	4k	8k	
UNI-X220-C (Maximum)	Open Extract	100%	45	75	63	57	60	61	43	44	33	31	
	Open Supply	100%	45	75	61	52	60	55	46	41	30	26	
Circular	Breakout	100%	45	75	53	53	59	63	40	34	24	18	39

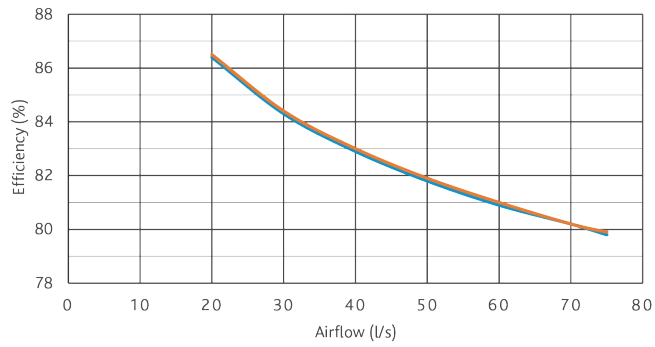
## UNI-X220-C EXAMPLE SELECTIONS - For further details please refer to Nuair Fan Selector ([www.nuair.co.uk](http://www.nuair.co.uk))

No. of beds	Plus kitchen/living	Duty	PA	SFP	dBa
2 Bed	1	29 l/s	75 Pa	0.9	36
3 Bed	1	37 l/s	75 Pa	1.1	37
4 Bed	1	45 l/s	75 Pa	1.4	39

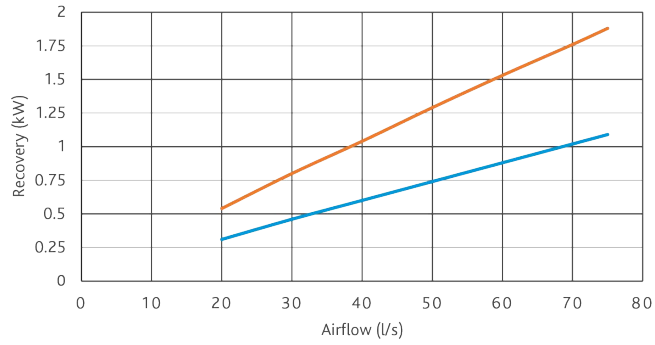
## UNI-X220-C TECHNICAL DATA

Fan Code	Voltage (V AC)	Input power (kW)	FLC/SC (A)	Fan Speed (RPM)	Unit Weight (kg)	Pallet/Crate Dimensions (Stack of 3) H x W x L (mm)
UNI-X220-C	230	0.17	1.32	3200	40	1107 x 572 x 1003

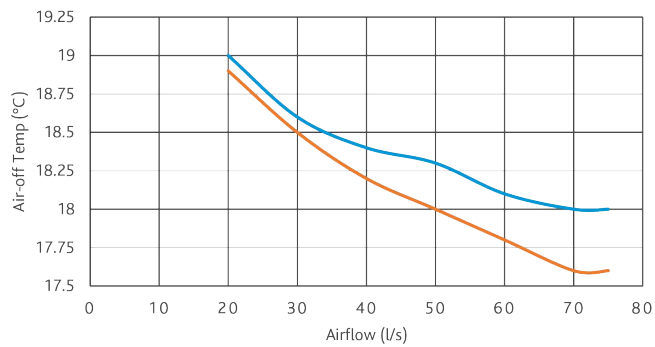
### UNI-X220 HEAT EXCHANGER EFFICIENCY



### UNI-X220 HEAT RECOVERY

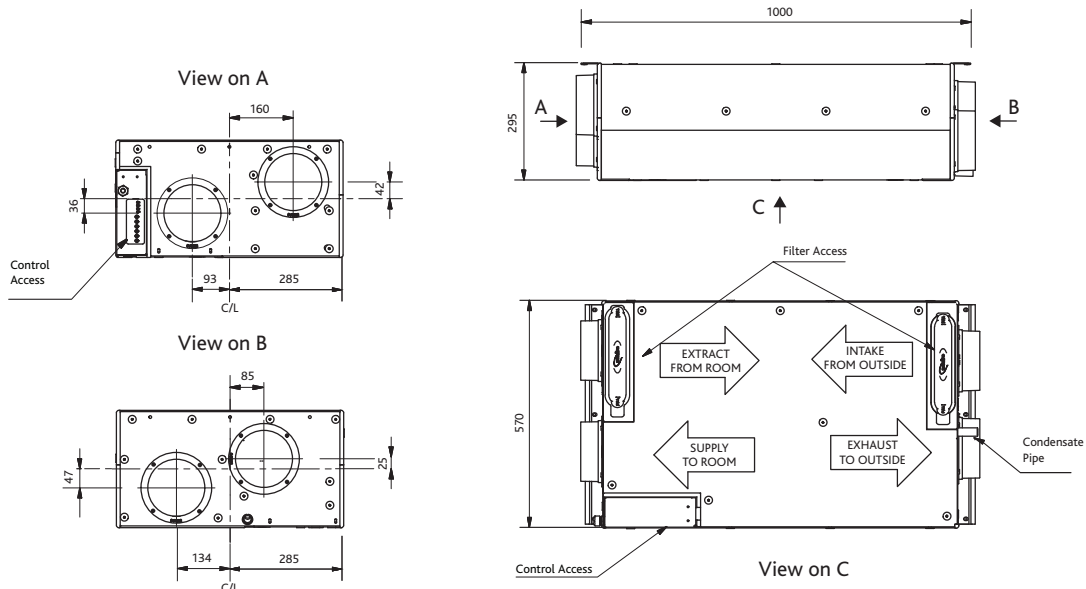


### UNI-X220 AIR-OFF TEMPERATURES

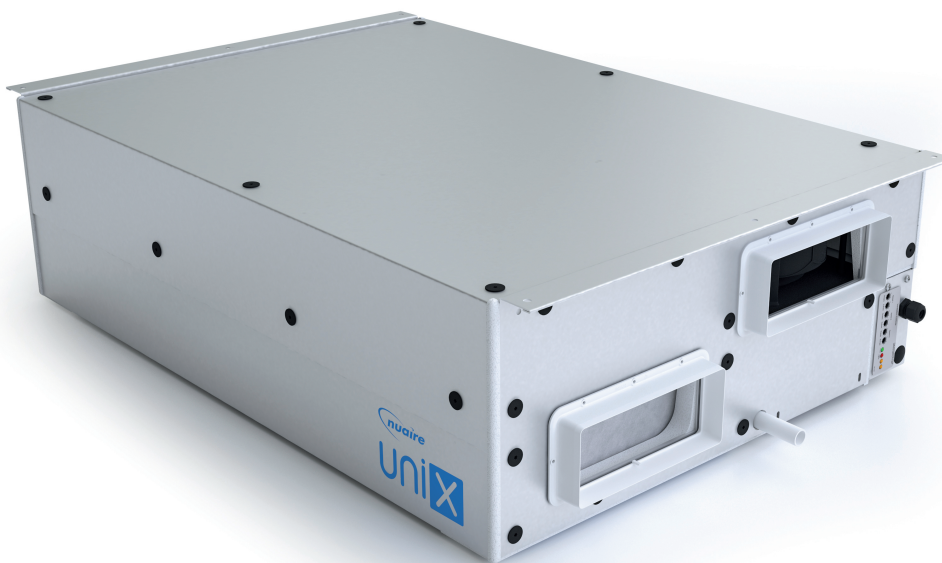


### UNI-X220-C CIRCULAR SPIGOTS (150mm dia.)

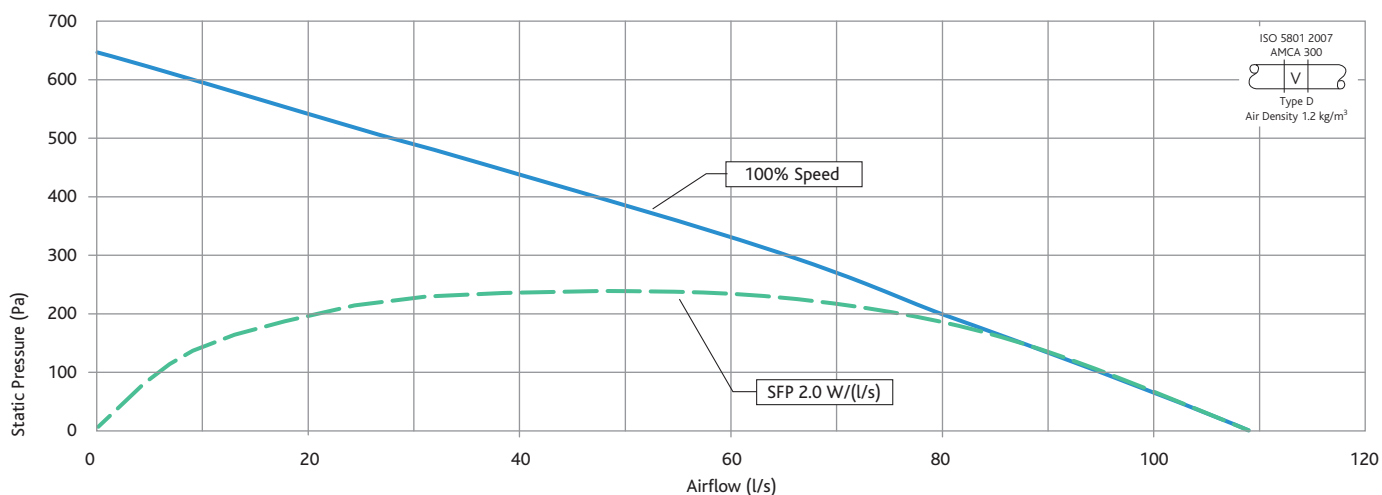
#### UNIT DIMENSIONS



# uniX UNI-X360 PERFORMANCE & TECHNICAL DETAILS



## UNI-X360 RECTANGULAR SPIGOTS UNIT PERFORMANCE



## UNI-X360 RECTANGULAR SPIGOTS UNIT - ACOUSTIC DATA

Fan Code	Type	Speed	Volume Flow (l/s)	Fan Static Pressure (Pa)	Sound Power Levels re 1pW (Hz)								(dBA@3m)
					63	125	250	500	1k	2k	4k	8k	
UNI-X360 (Maximum Rectangular)	Open Extract	100%	77	75	57	50	64	61	47	48	40	37	
	Open Supply	100%	77	75	56	47	60	60	48	46	37	30	
	Breakout	100%	77	75	51	53	63	61	43	39	31	30	39

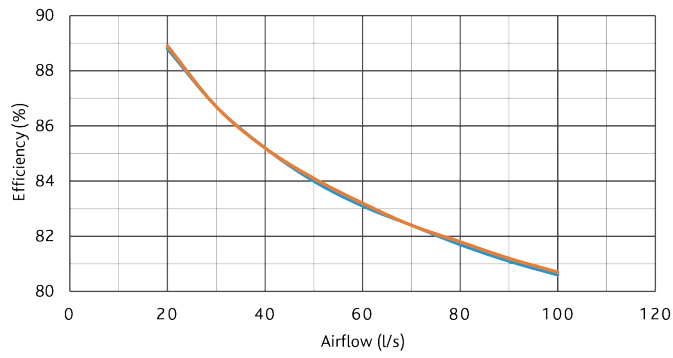
## UNI-X360 EXAMPLE SELECTIONS - For further details please refer to Nuaire Fan Selector ([www.nuaire.co.uk](http://www.nuaire.co.uk))

No. of beds	Plus kitchen/living	Duty	PA	SFP	dBA
5 Bed	1	53 l/s	75 Pa	0.8	35
6 Bed	1	61 l/s	75 Pa	0.9	36
7 Bed	1	69 l/s	75 Pa	1.1	38
8 Bed	1	77 l/s	75 Pa	1.2	39

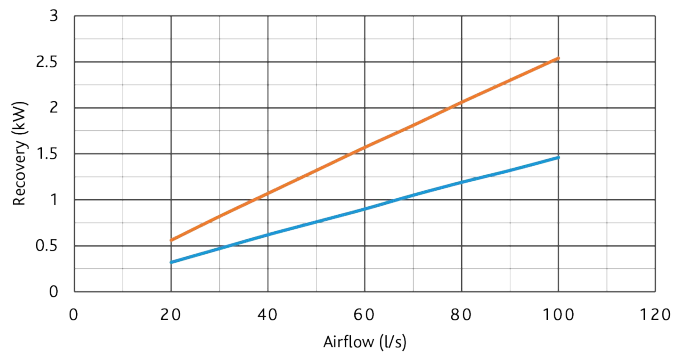
## UNI-X360 TECHNICAL DATA

Fan Code	Voltage (V AC)	Input power (kW)	FLC/SC (A)	Fan Speed (RPM)	Unit Weight (kg)	Pallet/Crate Dimensions (Stack of 3) H x W x L (mm)
UNI-X360	230	0.17	1.32	3200	55	1114 x 721 x 1095

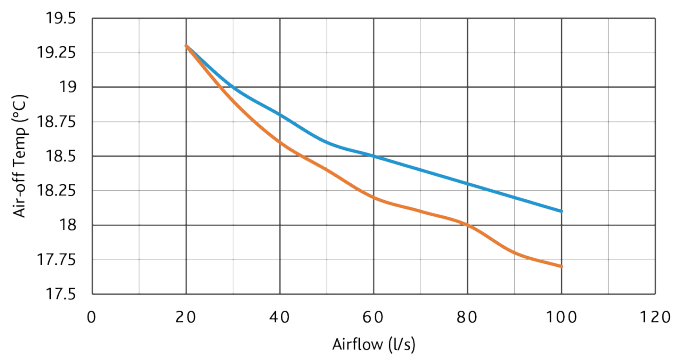
### UNI-X360 HEAT EXCHANGER EFFICIENCY



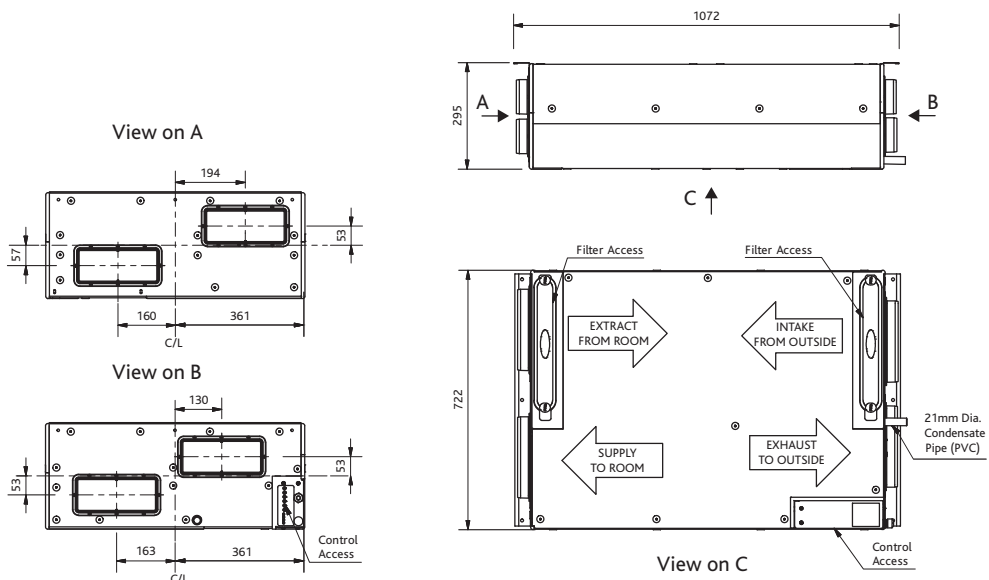
### UNI-X360 HEAT RECOVERY



### UNI-X360 AIR-OFF TEMPERATURES

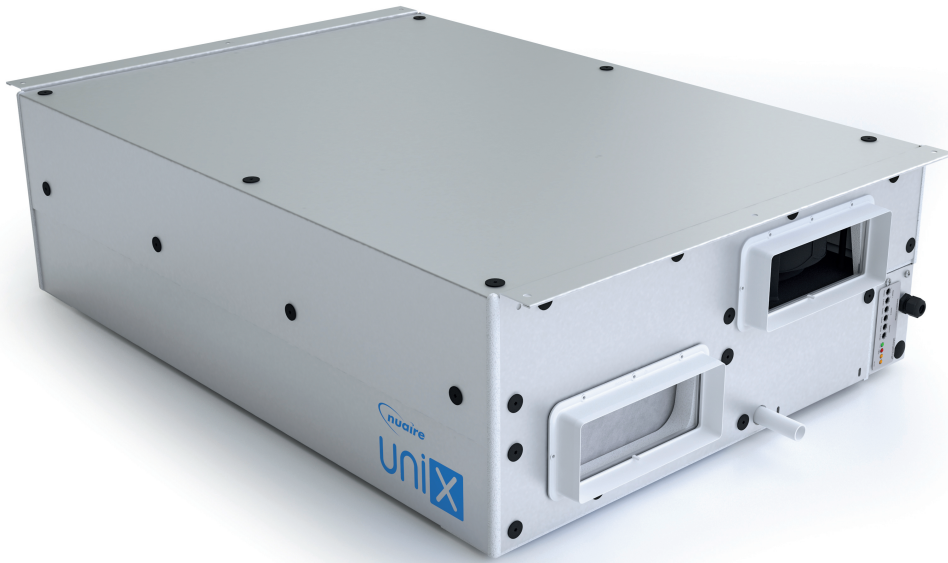


### UNI-X360 RECTANGULAR SPIGOTS (220 x 90mm) UNIT DIMENSIONS

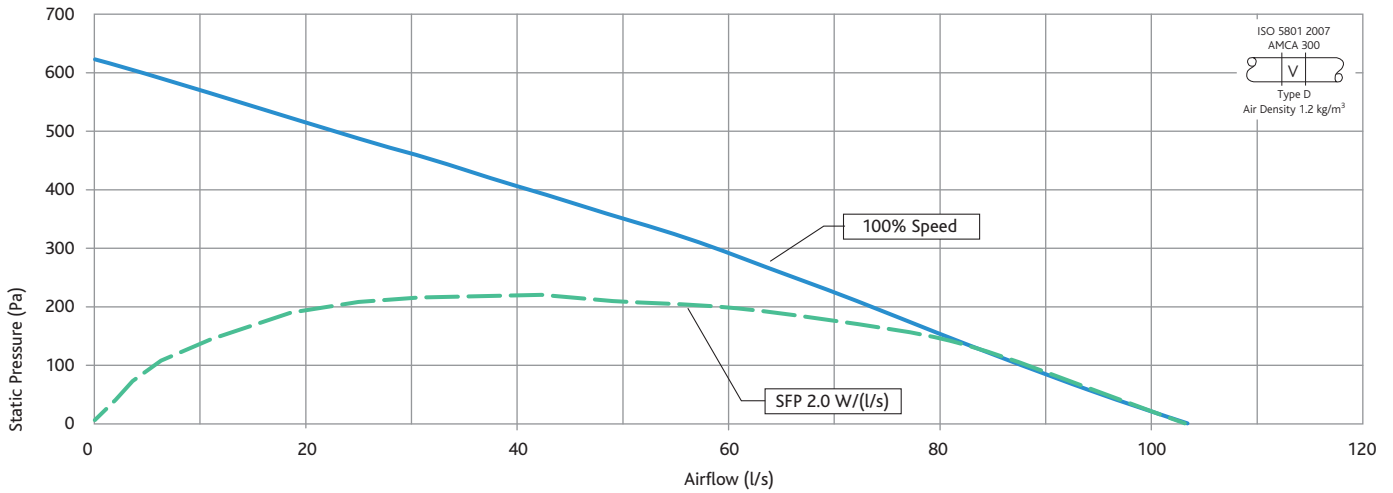




# UNI-X360-C PERFORMANCE & TECHNICAL DETAILS



## UNI-X360-C CIRCULAR SPIGOTS UNIT PERFORMANCE



## UNI-X360-C CIRCULAR SPIGOTS UNIT - ACOUSTIC DATA

Fan Code	Type	Speed	Volume Flow (l/s)	Fan Static Pressure (Pa)	Sound Power Levels re 1pW (Hz)								(dBA@3m)
					63	125	250	500	1k	2k	4k	8k	
UNI-X360-C (Maximum Circular)	Open Extract	100%	77	75	54	57	63	64	48	47	39	37	
	Open Supply	100%	77	75	52	54	57	59	49	46	35	29	
	Breakout	100%	77	75	55	54	60	61	45	40	31	25	38

## UNI-X360-C EXAMPLE SELECTIONS - For further details please refer to Nuair Fan Selector ([www.nuair.co.uk](http://www.nuair.co.uk))

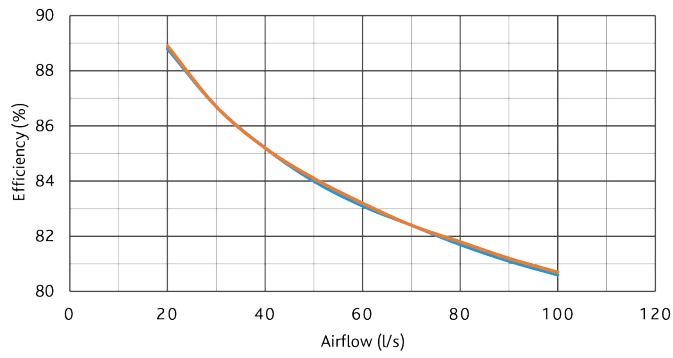
No. of beds	Plus kitchen/living	Duty	PA	SFP	dBA
5 Bed	1	53 l/s	75 Pa	1	34
6 Bed	1	61 l/s	75 Pa	1.1	35
7 Bed	1	69 l/s	75 Pa	1.3	36
8 Bed	1	77 l/s	75 Pa	1.4	38

## UNI-X360-C TECHNICAL DATA

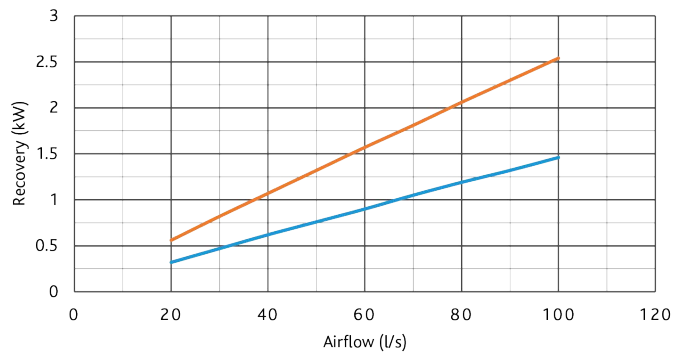
Fan Code	Voltage (V AC)	Input power (kW)	FLC/SC (A)	Fan Speed (RPM)	Unit Weight (kg)	Pallet/Crate Dimensions (Stack of 3) H x W x L (mm)
UNI-X360-C	230	0.17	1.32	3200	55	1114 x 721 x 1095



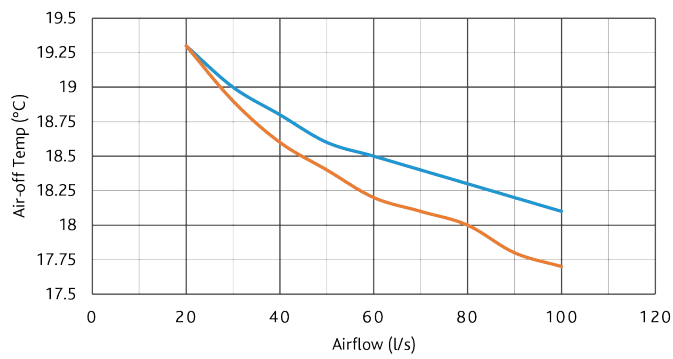
### UNI-X360 HEAT EXCHANGER EFFICIENCY



### UNI-X360 HEAT RECOVERY

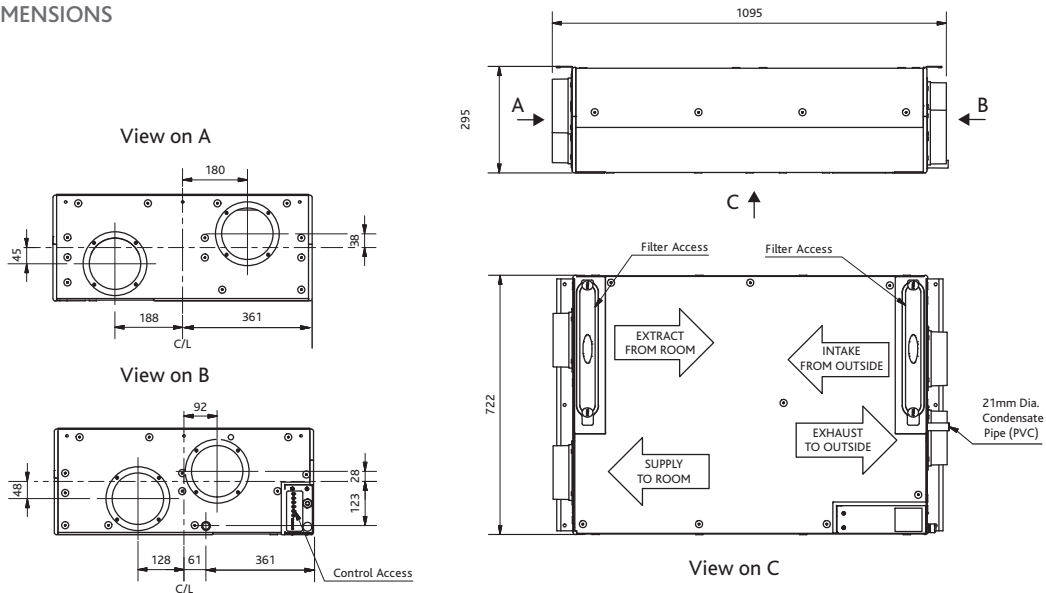


### UNI-X360 AIR-OFF TEMPERATURES



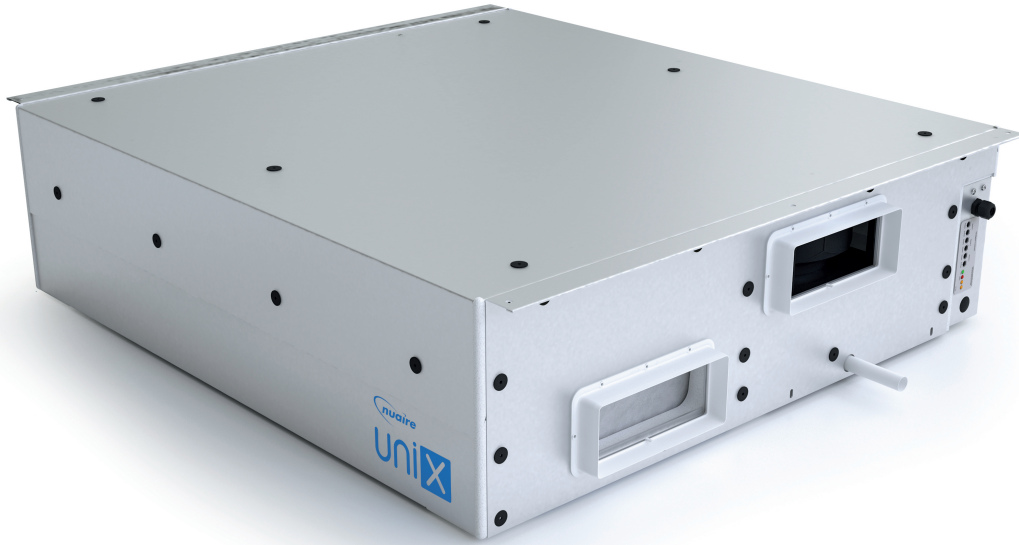
### UNI-X360-C CIRCULAR SPIGOTS (150mm dia.)

#### UNIT DIMENSIONS

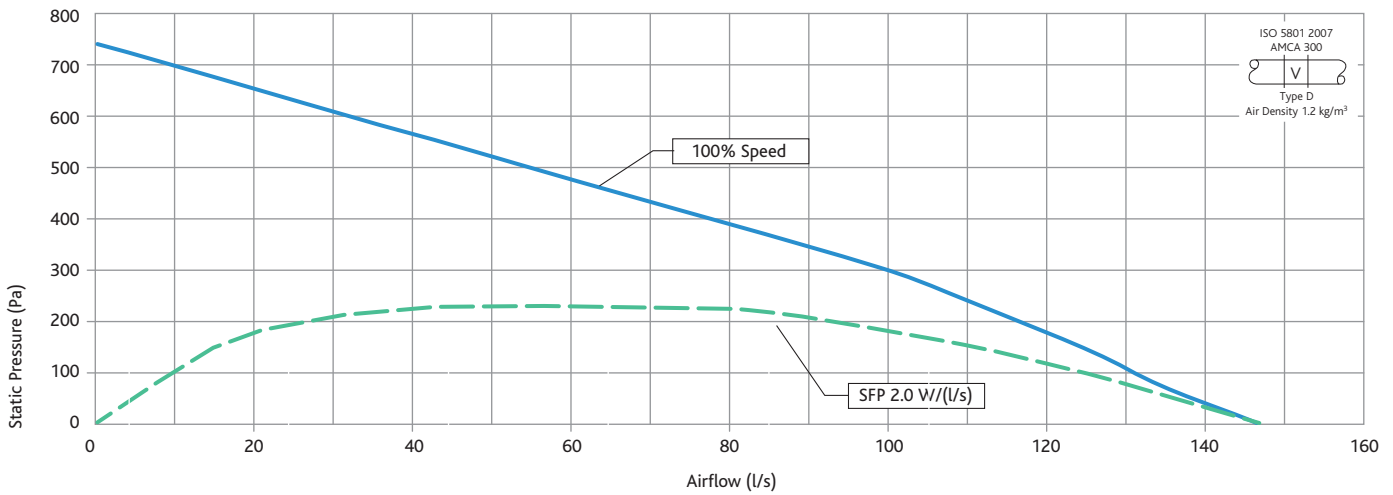




# UNI-X580 PERFORMANCE & TECHNICAL DETAILS



## UNI-X580 RECTANGULAR SPIGOTS UNIT PERFORMANCE



## UNI-X580 RECTANGULAR SPIGOTS UNIT - ACOUSTIC DATA

Fan Code	Type	Speed	Volume Flow (l/s)	Fan Static Pressure (Pa)	Sound Power Levels re 1pW (Hz)								(dBA@3m)
					63	125	250	500	1k	2k	4k	8k	
UNI-X580 (Maximum Rectangular)	Open Extract	100%	109	100	61	58	68	59	51	52	40	35	
	Open Supply	100%	109	100	56	55	65	57	52	49	39	29	
	Breakout	100%	109	100	65	67	66	61	48	43	34	29	40

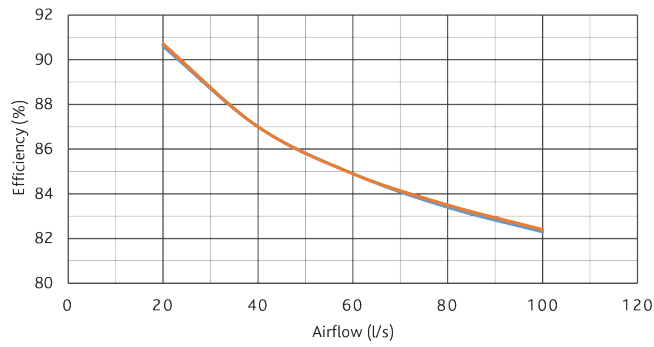
## UNI-X580 EXAMPLE SELECTIONS - For further details please refer to Nuair Fan Selector ([www.nuaire.co.uk](http://www.nuaire.co.uk))

No. of beds	Plus kitchen/living	Duty	PA	SFP	dB(A)
9 Bed	1	85 l/s	75 Pa	1.1	37
10 Bed	2	106 l/s	100 Pa	1.6	40
12 Bed	1	109 l/s	100 Pa	1.6	40

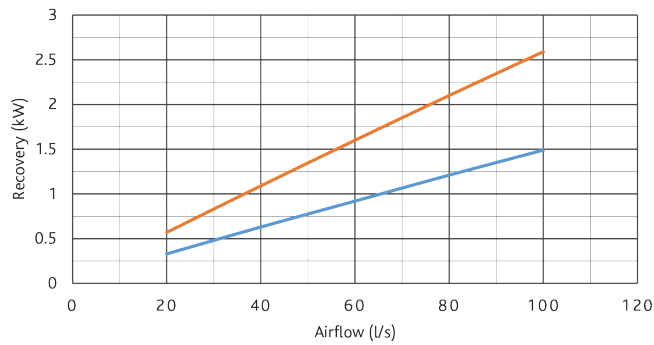
## UNI-X580 TECHNICAL DATA

Fan Code	Voltage (V AC)	Input power (kW)	FLC/SC (A)	Fan Speed (RPM)	Unit Weight (kg)	Pallet/Crate Dimensions (Stack of 3) H x W x L (mm)
UNI-X580	230	0.34	2	2860	69	1106 x 988 x 1156

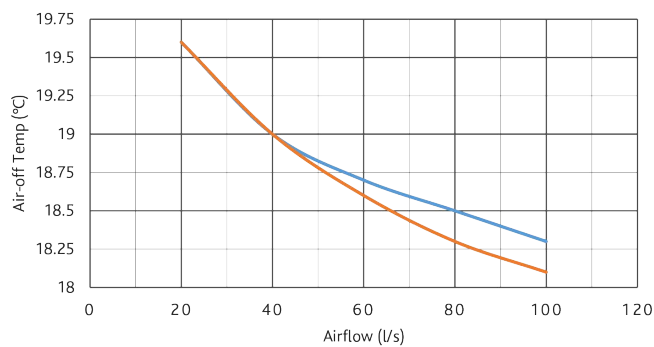
### UNI-X580 HEAT EXCHANGER EFFICIENCY



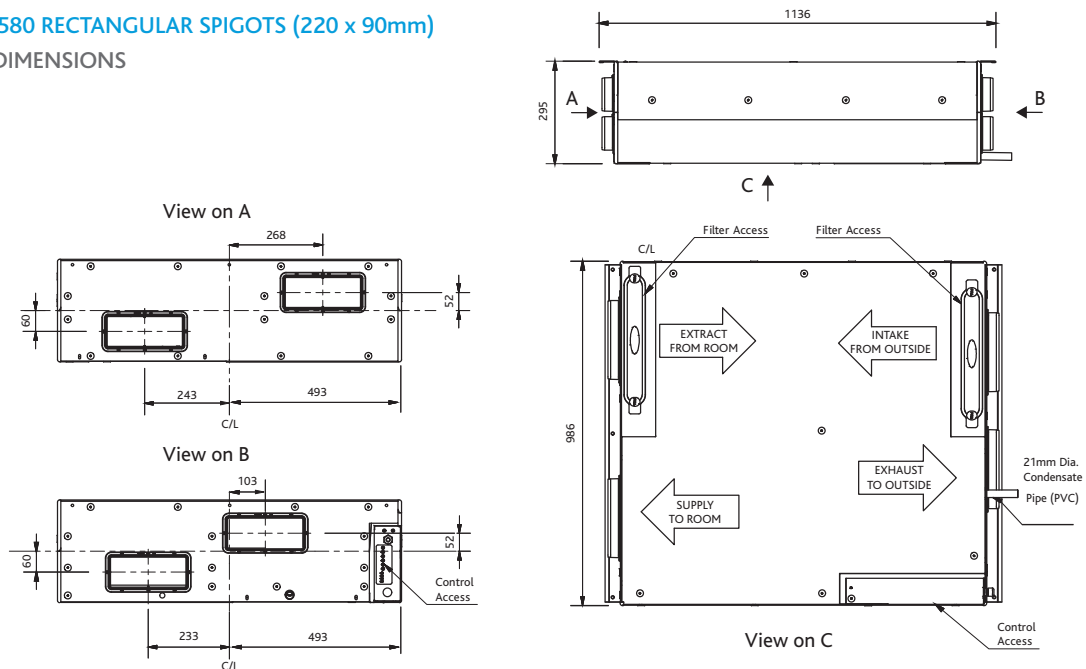
### UNI-X580 HEAT RECOVERY



### UNI-X580 AIR-OFF TEMPERATURES

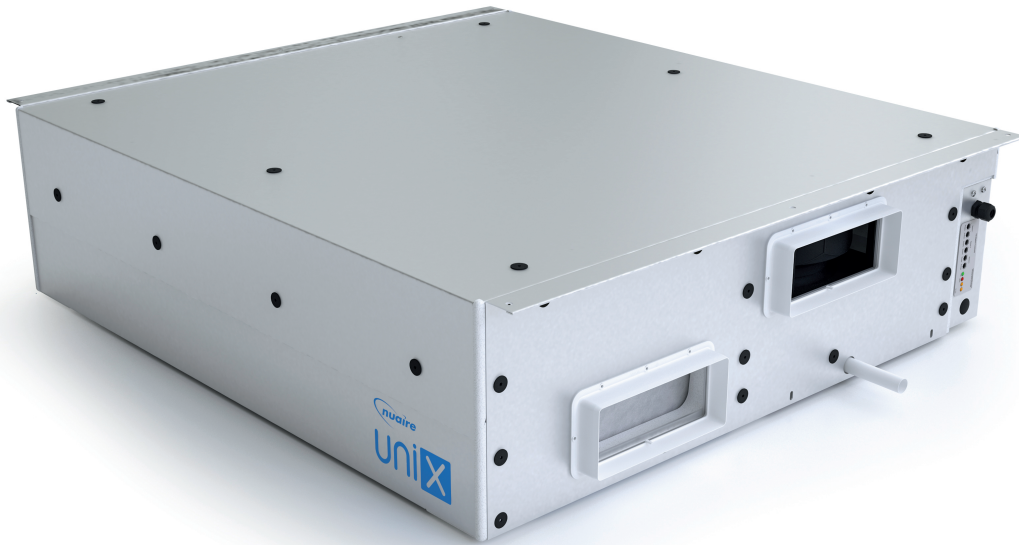


### UNI-X580 RECTANGULAR SPIGOTS (220 x 90mm) UNIT DIMENSIONS

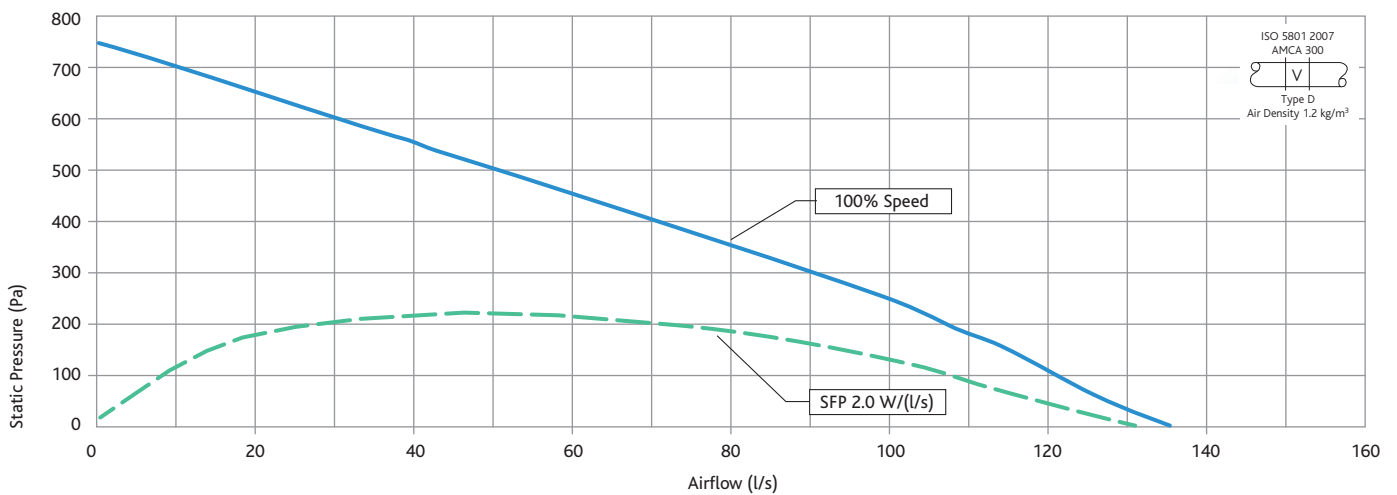




# UNI-X580-C PERFORMANCE & TECHNICAL DETAILS



## UNI-X580-C CIRCULAR SPIGOTS UNIT PERFORMANCE



## UNI-X580-C CIRCULAR SPIGOTS UNIT - ACOUSTIC DATA

Fan Code	Type	Speed	Volume Flow (l/s)	Fan Static Pressure (Pa)	Sound Power Levels re 1pW (Hz)								(dBA@3m)
					63	125	250	500	1k	2k	4k	8k	
UNI-X580-C (Maximum Circular)	Open Extract	100%	109	75	57	63	69	61	49	51	39	36	41
	Open Supply	100%	109	75	59	60	66	59	53	48	37	29	
	Breakout	100%	109	75	65	68	66	62	49	44	35	30	

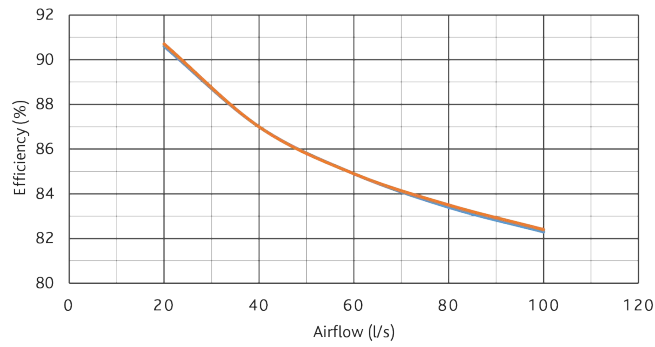
## UNI-X580-C EXAMPLE SELECTIONS - For further details please refer to Nuair Fan Selector ([www.nuair.co.uk](http://www.nuair.co.uk))

No. of beds	Plus kitchen/living	Duty	PA	SFP	dBA
9 Bed	1	85 l/s	75 Pa	1.3	38
10 Bed	2	106 l/s	75 Pa	1.8	41
12 Bed	1	109 l/s	75 Pa	1.9	41

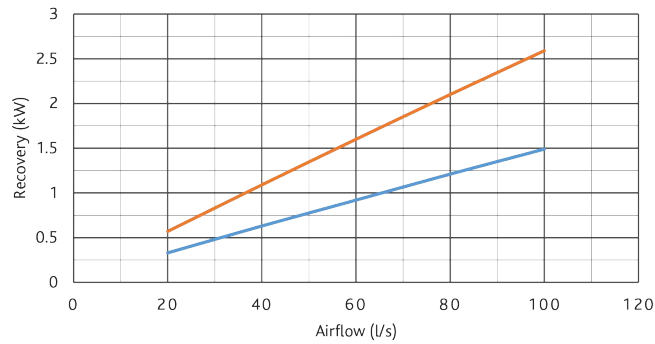
## UNI-X580-C TECHNICAL DATA

Fan Code	Voltage (V AC)	Input power (kW)	FLC/SC (A)	Fan Speed (RPM)	Unit Weight (kg)	Pallet/Crate Dimensions (Stack of 3) H x W x L (mm)
UNI-X580-C	230	0.34	2	2860	69	1106 x 988 x 1156

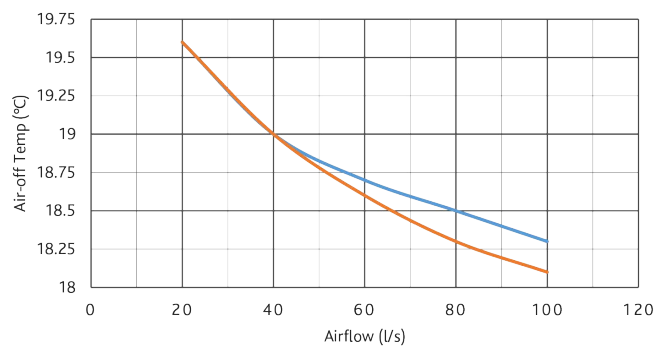
### UNI-X580 HEAT EXCHANGER EFFICIENCY



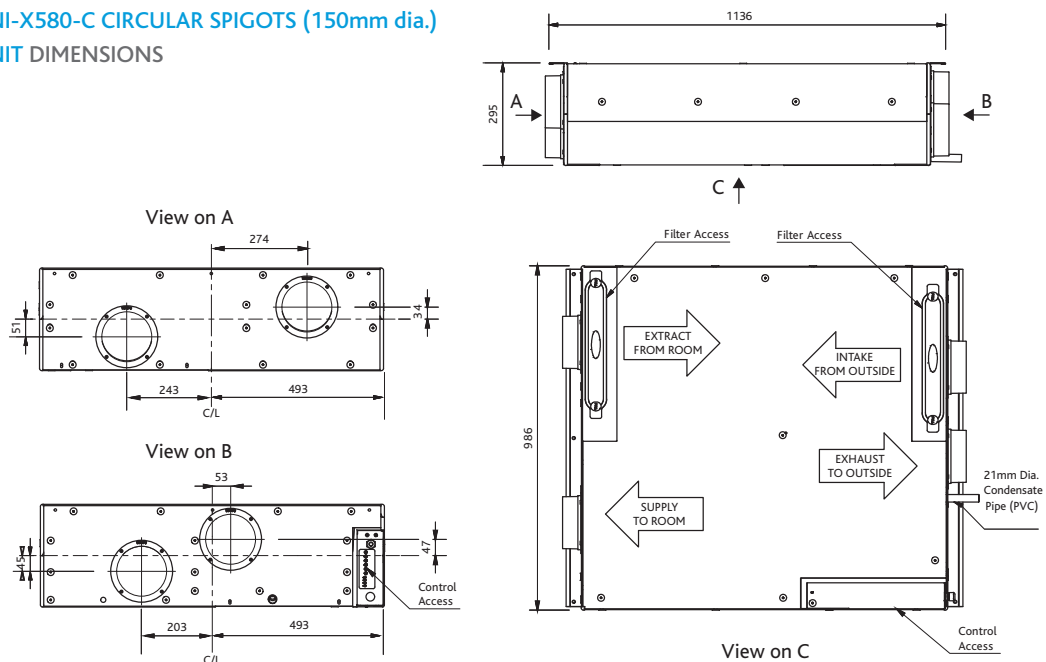
### UNI-X580 HEAT RECOVERY



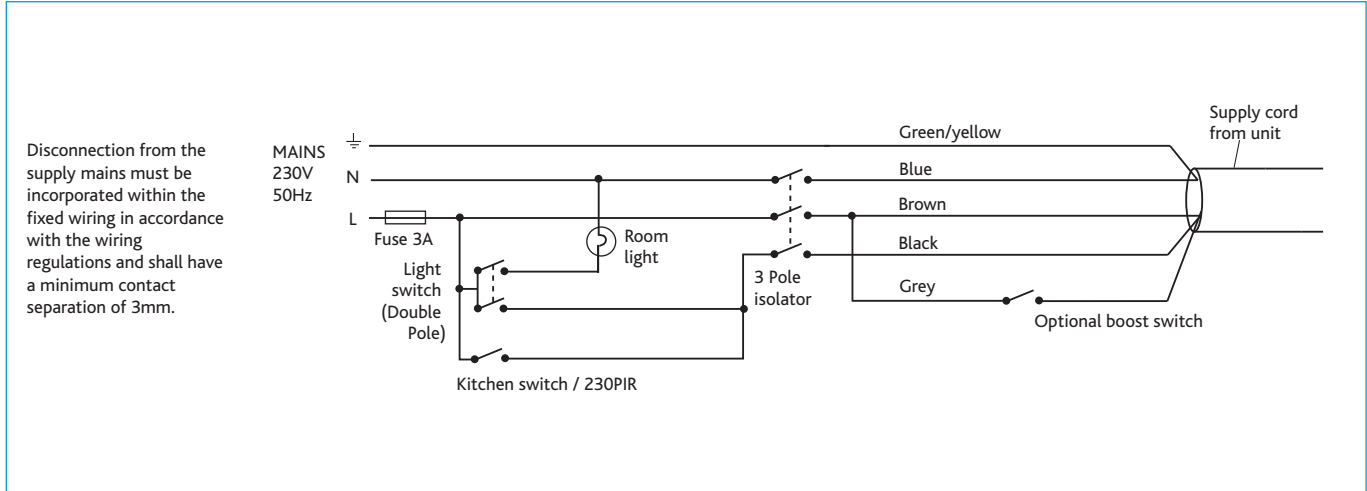
### UNI-X580 AIR-OFF TEMPERATURES



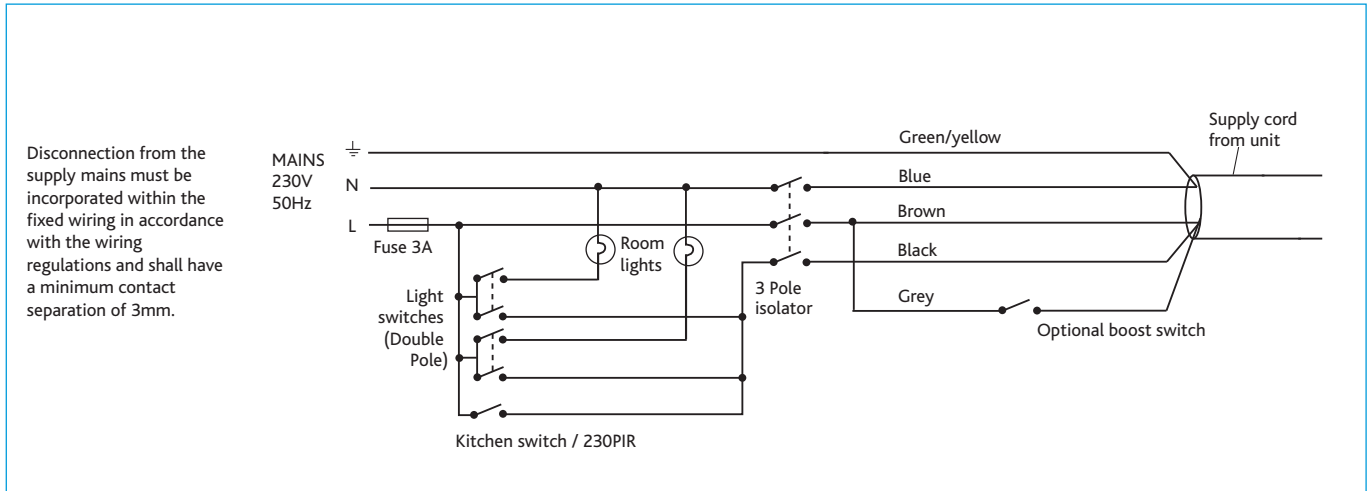
### UNI-X580-C CIRCULAR SPIGOTS (150mm dia.) UNIT DIMENSIONS



## UNIT SERVING KITCHEN AND BATHROOM



## UNIT SERVING KITCHEN AND TWO BATHROOMS



# uniX UNI-X MECHANICAL VENTILATION CONSULTANTS SPECIFICATION

## UNIT SPECIFICATION

The unit shall be manufactured from high density EPS (Expanded polystyrene) with galvanised sheet steel casing to provide excellent thermal and acoustic characteristics, while providing a lightweight and low profile casing.

Incorporating a high efficiency, aluminium counter flow heat exchanger block with a thermal efficiency of up to 90%.

The heat exchanger will be protected by two G3 grade filters in the fresh inlet and system extract air streams, with both filters being accessible from the underside of the unit allowing for quick and easy maintenance.

The unit shall have a maximum height less than 295mm to fit within ceiling voids.

The unit will contain two, low energy, high efficiency EC fan assemblies, with centrifugal backward curved impellers offering IP54 rating and stepless speed control. The fans will have the facility for variable speed control at trickle (continuous background ventilation), and boost speed to allow for individual specific adjustment during commissioning.

The motors shall be suitable for use in ambient temperatures of 40°C.

## CONTROL OPTIONS

The control shall be capable of 3 speed operation.

All versions shall have the following functions integrally mounted with the fan unit on a purpose made PCB, all such components are pre-wired and factory fitted by the manufacturer:

- Independent control of background supply and extract flow rates
- Independent control of boost speed supply and extract flow rates
- Independent control of secondary boost speed supply and extract flow rates
- Integral fan failure indication
- Integral Switch Live terminal for boost speed commission level, from remote switch e.g light switch
- Integral Switch Live terminal for secondary boost to commission level from remote switch, e.g wall switch
- Integral heat exchanger frost protection.
- Automatic summer bypass

The unit shall be supplied complete with a condensate drip tray and 21.5mm drain connection.

The unit shall be fitted as standard with an automatic 100% bypass facility.

The bypass opens automatically when the supply air exceeds 20°C, this opens the bypass channel via actuators and allow the outside air to bypass the heat exchanger. The air which is bypassed will still pass through the filter to ensure that the air quality remains the same regardless of the external temperatures.

The breakout noise level and power requirements shall be as detailed by the unit manufacturer and in accordance with the ventilation equipment schedule.

## OPERATION

The unit shall be positioned as indicated on the drawings and shall be in accordance with the particular fan schedule in the specification.

The combined supply and heat recovery unit shall supply filtered fresh air to each to the habitable rooms whilst extracting moisture-laden air from wet area's e.g Bathrooms.

The supply air shall be tempered via the counterflow heat exchanger.

The unit shall boost its speed and therefore the ventilation rate as it receives a signal from light/remote switch.

The unit shall have a secondary boost speed in addition to the standard boost speed.

The unit shall have the facility to commission the supply and extract fan independently at all 3 speeds.

## UNITS WITH RECTANGULAR SPIGOTS

UNI-X220: The unit shall be suitable for 220 x 90mm Rectangular ducting.

UNI-X360: The unit shall be suitable for 220 x 90mm Rectangular ducting.

UNI-X580: The unit shall be suitable for 220 x 90mm Rectangular ducting.

## UNITS WITH CIRCULAR SPIGOTS

UNI-X220-C: The unit shall be suitable for Ø150mm Circular ducting.

UNI-X360-C: The unit shall be suitable for Ø150mm Circular ducting.

UNI-X580-C: The unit shall be suitable for Ø150mm Circular ducting.

## CODE DESCRIPTION

UNI-X360-C  
| | |  
1 2 3

1. UNI-X = Range
2. 360 = Unit model 220, 360 or 580
3. C = Circular spigots,  
No 'C' = Rectangular spigots

# EXTRACT RANGE

## PRODUCT SELECTOR

-  LOCAL UNITS
-  CENTRALISED UNITS
-  LOCAL & CENTRALISED UNITS

WALL & CEILING MOUNTED											
		Duty	Single Room with ensuite	Bedsit with kitchen	1, 2 and 3 bed apartment	Single Room ensuite centralised	Bedsit with kitchen centralised	1, 2 and 3 bed apartment centralised	Cluster (up to 4) plus kitchen/ living space	Cluster of (up to 8) plus kitchen/ living space	Cluster (up to 12) plus kitchen/ living space
	GENIE DC	Up to 31l/s	●	●	●				●	●	●
	GENIE DCE	Up to 31l/s	●	●	●				●	●	●
	DMEV	Up to 18l/s	●	●	●				●	●	●
	XS6, 9 & 12	Up to 530l/s	●	●	●				●	●	●
	OPUS 40, 60 & 95	Up to 95l/s	●	●	●				●	●	●
DUCTED IN CEILING VOIDS											
	ES-OPUS DC	Up to 110l/s	●	●	●				●	●	●
	MEVDC	Up to 98l/s	●	●	●				●	●	●
	MEVDC2	Up to 98l/s	●	●	●				●	●	●
	DAVE	Up to 1.1m <sup>3</sup> /s				●	●	●			
	AIRVOLVE AVS/CP (Single fan)	Up to 1.8m <sup>3</sup> /s				●	●	●			
	AIRVOLVE AVT/CP (Twin fan)	Up to 1.8m <sup>3</sup> /s				●	●	●			
	QUIETSCROLL EST/CP (Twin fan)	Up to 4.5m <sup>3</sup> /s				●	●	●			
PLANT ROOMS INTERNAL/ROOF TOP/EXTERNAL											
	DAVE Int/Ext	Up to 1.1m <sup>3</sup> /s				●	●	●			
	AIRVOLVE AVS/CP (Single fan) Internal only	Up to 1.8m <sup>3</sup> /s				●	●	●			
	AIRVOLVE AVT/CP (Twin fan) Int/Ext	Up to 1.8m <sup>3</sup> /s				●	●	●			
	QUIETSCROLL EST/CP (Twin fan) Int/Ext	Up to 4.5m <sup>3</sup> /s				●	●	●			



# HEAT RECOVERY PRODUCT SELECTOR



LOCAL UNITS



CENTRALISED UNITS



LOCAL & CENTRALISED UNITS

			Single Room with ensuite	Bedsit with kitchen	1, 2 and 3 bed apartment	Single Room ensuite centralised	Bedsit with kitchen centralised	1, 2 and 3 bed apartment centralised	Cluster (up to 4) plus kitchen/ living space	Cluster of (up to 8) plus kitchen/ living space	Cluster (up to 10) plus kitchen/ living space
<b>WALL &amp; CEILING MOUNTED</b>			<b>Duty</b>								
	MRXBOX95AB-WM1	Up to 52.1l/s	●	●	●						
	MRXBOX95AB-WM2	Up to 90l/s	●	●	●						
	MRXBOX95AB-WH1	Up to 110l/s	●	●	●						
	MRXBOX95AB-WH2	Up to 180l/s	●	●	●						
<b>DUCTED IN CEILING VOIDS</b>											
	MRXBOX95AB-ECO-LP1	Up to 78l/s	●	●	●				●	●	●
	OPUS-XBOX	Up to 100l/s	●	●	●						
	XBC 10 - 65	Up to 0.79m <sup>3</sup> /s	●	●	●	●	●	●			
	XBC 10 - 65/CP	Up to 0.79m <sup>3</sup> /s				●	●	●			
<b>PLANT ROOMS/ROOF TOP/EXTERNAL</b>											
	XBC10-85/WP	Up to 2.1m <sup>3</sup> /s			●	●	●	●	●	●	●
	XBC10-85/WP/CP	Up to 2.1m <sup>3</sup> /s			●	●	●	●	●	●	●
	BOXER PACKAGED SOLUTIONS	Up to 5m <sup>3</sup> /s			●	●	●	●	●	●	●
	BOXER BESPOKE	Up to 10m <sup>3</sup> /s			●	●	●	●	●	●	●

The Nuair Q-Aire range of products has been designed to complement ventilation systems that are a necessity in modern living. We recognise that customers need products quickly, systems that work quietly and confidence in their high quality - something that comes as standard with Nuair. The range is comprised of a **supply and extract valve**, an **in-line carbon filter**, an **acoustic enclosure for an MVHR unit only** and finally a unique all-in-one **acoustic enclosure** surrounding not only an MVHR unit but a **built in silencer as well**.

## Q-AIRE-V125, EV-125F & EV-125FH

The supply & extract Valve can help solve common problems with MVHR commissioning, balancing and performance.

It is available in three versions:

1. **Standard supply and extract (Q-Aire-V125)**
2. **Filtered extract (Q-Aire-EV125F)**
3. **Filtered extract with integral humidistat (Q-Aire-EV125FH).**

Q-Aire supply & extract valve is the only lockable, filtered valve on the market and is fully-compliant with the latest NHBC guidance.



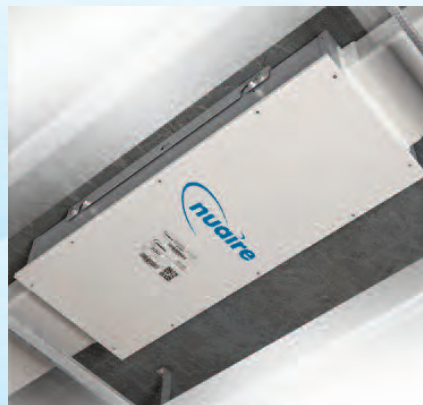
Q-AIRE-EV125F Extract valve with filter.

## Q-AIRE IAQBOX-S

Nuair's **IAQBOX** range offers solutions for urban areas where air pollutants such as NO<sub>2</sub>, Carbon Dioxide and dangerous Particulate Matter need to be filtered before outdoor air enters the property.

These specifiable products will refine traditional filtration and ensure that Air Quality planning obligations are met.

The **IAQBOX-S** offers a unique approach in carbon filtration by using a single cell carbon filter to refine polluted outdoor air that MVHR systems bring in to properties.



Typical IAQBOX-S installation.

## Q-AIRE IAQBOX-D

The **IAQBOX-D** is Nuair's unique offering, showcasing a double size unit which allows a larger volume of air-flow to pass through the carbon filter resulting in some of the lowest resistances on the market.

This unit also comes with the option of 2 outlet spigots, further reducing system pressure and resistance by decreasing the number of duct runs needed to feed to all supply rooms.



Typical IAQBOX-D installation.

**Q-AIRE V125,  
EV125F & EV125FH**

**Q-AIRE BENEFITS  
EVERYBODY FROM  
CONSULTANTS  
TO INSTALLERS**

As Mechanical Ventilation Heat Recovery fast becomes the most popular form of ventilation, Nuaire continue to lead the way in innovation and design. The Q-AIRE supply & extract valve **can help solve common problems with MVHR commissioning, balancing and performance.**

■ **STANDARD SUPPLY AND EXTRACT (Q-AIRE-V125)** Q-Aire supply & extract valve is the only lockable, filtered valve on the market and is fully-compliant with the latest NHBC guidance

■ **FILTERED EXTRACT (Q-AIRE-EV125F)**  
The filtered extract version removes the need for a duct cleaning regime and access panels because air is filtered before it enters the ducting. The valve is lockable once commissioned and even when the filter is removed and changed. Once replaced, it returns to the commissioned position

■ **FILTERED EXTRACT WITH INTEGRAL HUMIDISTAT (Q-AIRE-EV125FH)**  
Q-Aire extract valve is the only lockable, filtered valve on the market and is fully-compliant with the latest NHBC guidance. The in-built humidity sensor simply uses the Ecosmart SELV cable to connect back to the MVHR or MEV unit



Q-AIRE-V125 Supply and extract valve.



Q-AIRE-EV125F Extract valve with filter.



Q-AIRE-EV125FH Extract valve with filter and fitted integral humidistat.



The IAQ-V125 is Nuaire's unique carbon filter supply valve.



Q-AIRE valve shown installed.



The filter can be quickly replaced by simply removing the damper assembly and changing the filter. The damper assembly is then put back into its place without any adjustment of the commissioned set point, thus ensuring the system remains commissioned.

## AIR RESISTANCE PERFORMANCE

	Resistance in Pa				
	@8l/s	@13l/s	@21l/s	@29l/s	@37l/s
Existing V125S - 10mm Gap (CATALOGUE VALUES)	6	10	19	35	55
Q-AIRE-V125 (13mm Gap - Extract)	2	6	14	26	41
Q-AIRE-V125 (13mm Gap - Supply)	2	4	11	20	33
Q-AIRE-EV125F (13mm Gap - Extract)	4	11	27	48	73
Q-AIRE-EV125FH (13mm Gap - Extract)	4	11	27	48	73

## Q-AIRE SUPPLY & EXTRACT VALVES CONSULTANTS SPECIFICATION

### OPERATION

The supply and extract valves are used to control and distribute airflow entering or being removed from a dwelling.

They shall be capable of being used on their own, with a filter or with a filter and integral humidistat control.

### UNIT SPECIFICATION

Each valve shall be low profile, protruding from the ceiling by no more than 18mm when closed.

Each valve will be suitable for 125mm diameter ducting.

Each valve shall be made from flame retardant ABS plastic.

There shall be a means of adjusting the opening aperture for commissioning purpose with a decorative panel supplied to hide the commissioning screw.

The flow deflector shall be spring-loaded to prevent vibration.

It shall be possible to remove/replace the bezel disc assembly within the bezel for filter access without altering the commissioned position of the valve or deflector.

The filter shall be easily removed and be of G2 grade.

The assembly shall be supplied with a deflector plate to enable air to be directed away from obstacles or to prevent air being blown in a direction which would create nuisance draughts.

An optional humidity PCB for connection to ventilation unit shall be available with set point disc removal.

Humidistat PCB shall be Nuaire Ecosmart compatible.

The valve shall be offered with a 5 year warranty.

The manufacturer's recommendations should be observed at all times.

The valve shall be manufactured by Nuaire.

### OPTIONS

Three options shall be available:

- Q-AIRE-V-125 Supply & Extract Valve
- Q-AIRE-EV125F Extract Valve with filter
- Q-AIRE-EV125FH Extract Valve with filter and fitted with integral humidistat.

# Q-Aire IAQBOX-S CARBON FILTRATION

## Q-AIRE IAQBOX-S



The IAQBOX-S offers a unique approach in carbon filtration by using a **single cell carbon filter** to refine polluted outdoor air that MVHR systems bring in to properties.

■ **99.5% NO2 FILTRATION** - highest on the market

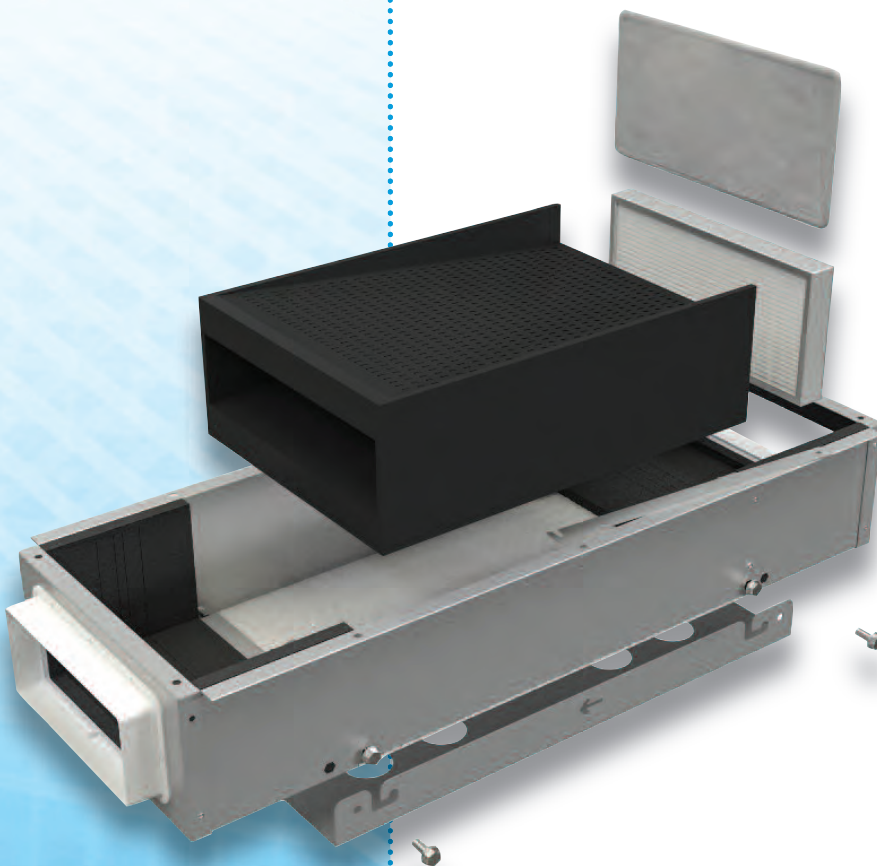
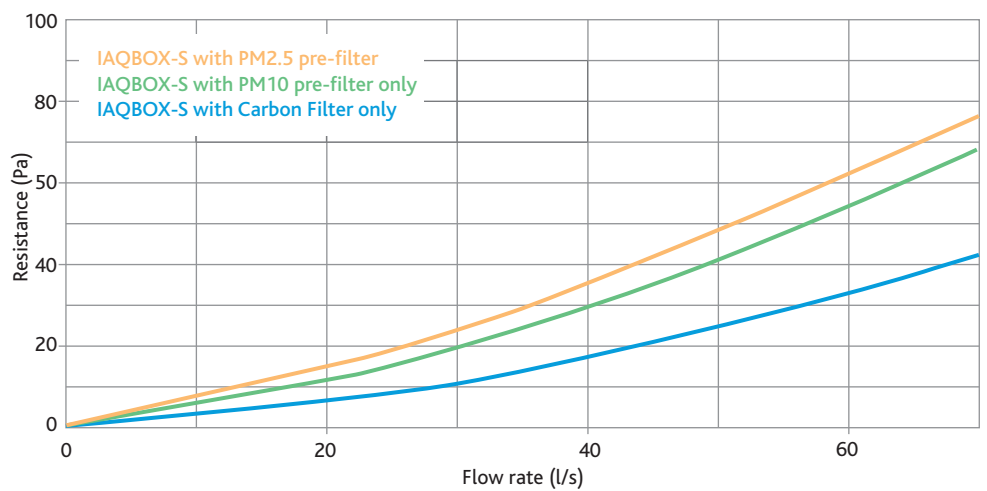
■ **LOWEST RESISTANCE** - meaning MVHR systems are not affected

■ **LOW PROFILE DESIGN** - for flexible installation

■ **CARBON FILTER** - unique single cell

■ **CHOICE OF PRE-FILTERS** - for increased Particulate Matter filtration

## AIR RESISTANCE TEST



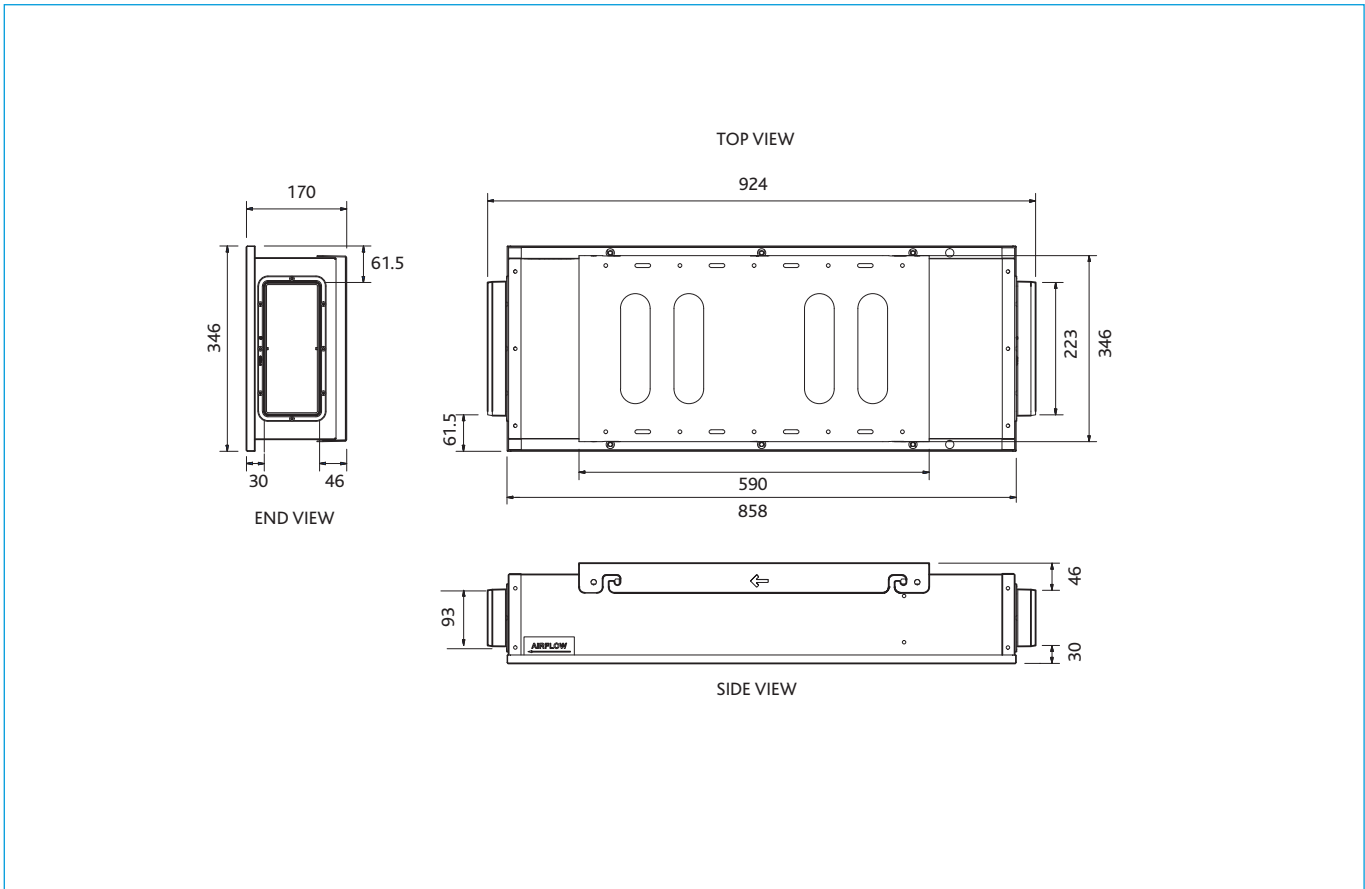
There is a choice of PM2.5 or PM10 pre-filters to further enhance the filtration of polluted, outdoor air when it enters the property.

**To specify the IAQBOX-S with fitted pre-filters please choose from the following codes.**

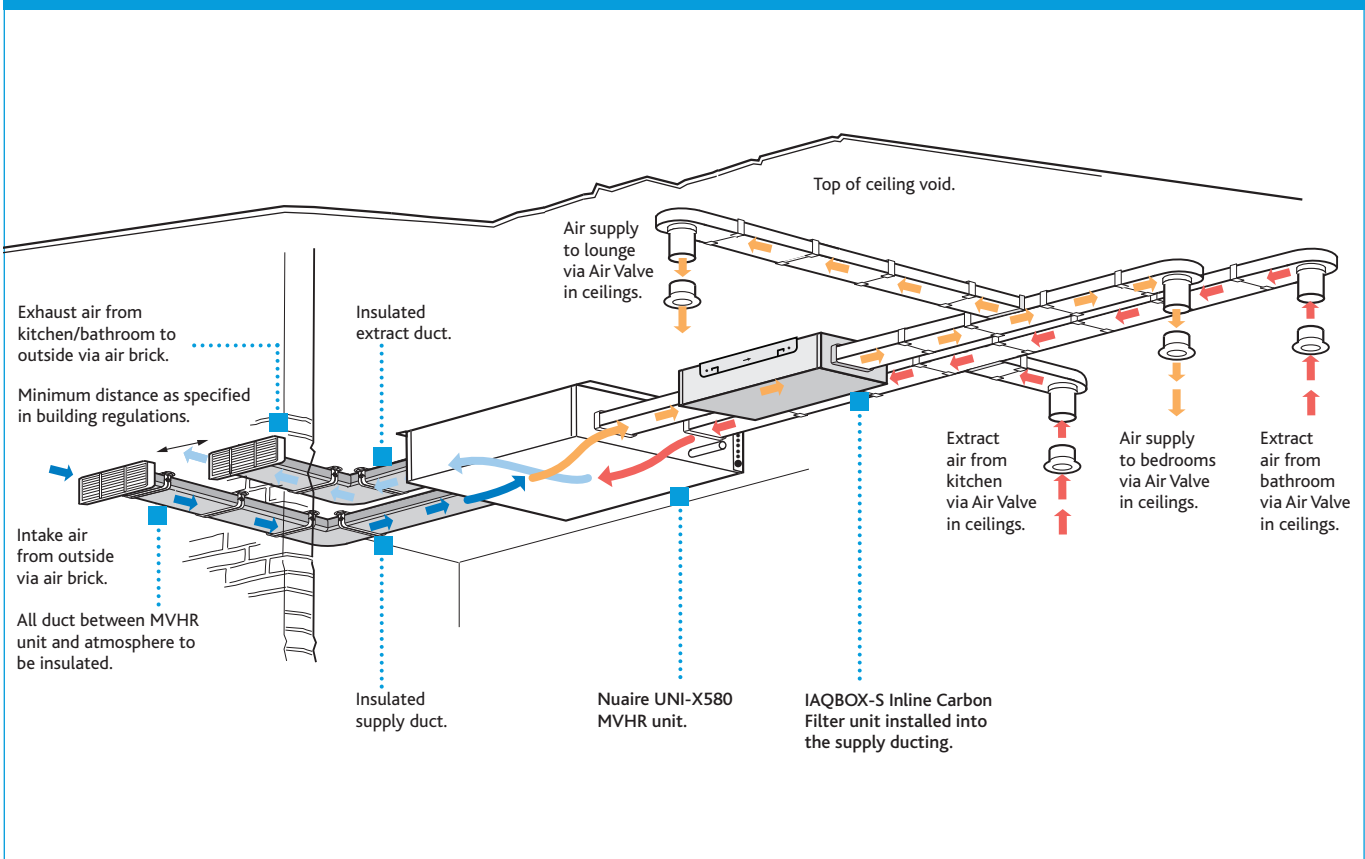
PM2.5 OR PM10 PRE-FILTERS			
	IAQBOX-S	IAQBOX-S-PM10	IAQBOX-S-PM2.5
No Pre-filter			
PM10 Pre-filter			
PM2.5 Pre-filter			

# Q-Aire IAQBOX-S DIMENSIONS (mm)

## IAQBOX-S DIMENSIONS (mm)



## TYPICAL EXAMPLE OF A UNI-X580 MVHR UNIT WITH IAQBOX-S, INSTALLED IN THE SUPPLY DUCTING.



# Q-Aire IAQBOX-D CARBON FILTRATION

## Q-AIRE IAQBOX-D

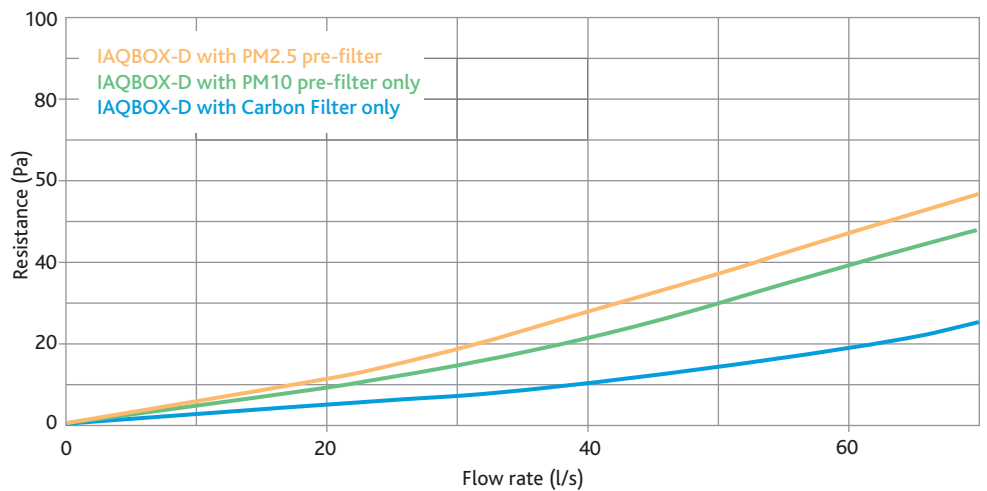


The IAQBOX-D is Nuaire's unique offering, showcasing a double size unit which allows a larger volume of air-flow to pass through the carbon filter resulting in some of the lowest resistances on the market. **This unit also comes with the option of 2 outlet spigots**, further reducing system pressure and resistance by decreasing the number of duct runs needed to feed to all supply rooms.

- 99.5% NO2 FILTRATION - highest on the market
- LOWEST RESISTANCE - meaning MVHR systems are not affected
- LOW PROFILE DESIGN - for flexible installation
- TWO OUTLET SPIGOT - option

- CARBON FILTER - unique single cell
- INNOVATIVE DOUBLE SIZE UNIT - with multi-spigot option
- CHOICE OF PRE-FILTERS - for increased Particulate Matter filtration

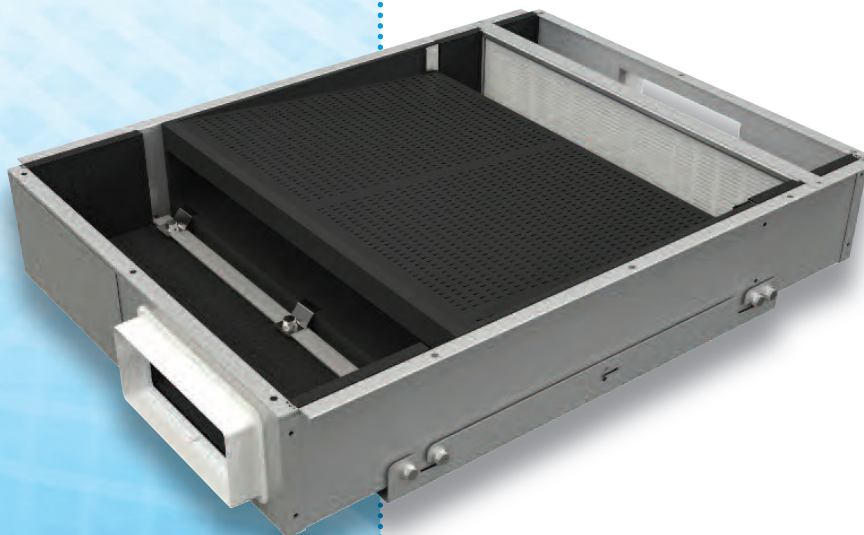
## AIR RESISTANCE TEST



There is a choice of PM2.5 or PM10 pre-filters to further enhance the filtration of polluted, outdoor air when it enters the property.

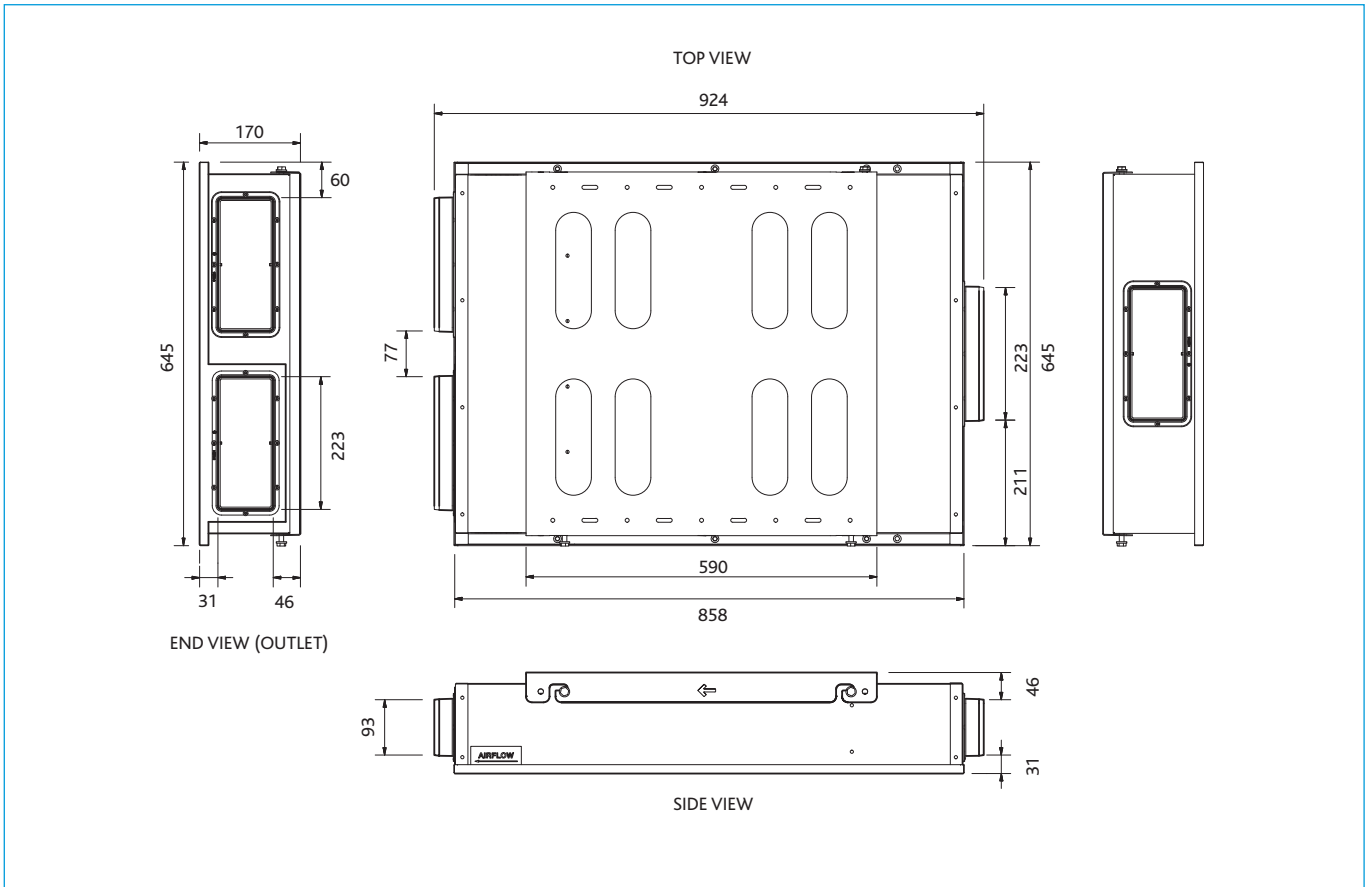
To specify the IAQBOX-D with fitted pre-filters please choose from the following codes.

PM2.5 OR PM10 PRE-FILTERS			
	IAQBOX-D	IAQBOX-D-PM10	IAQBOX-D-PM2.5
No Pre-filter	■	■	■
PM10 Pre-filter	■	■	■
PM2.5 Pre-filter	■	■	■



# Q-Aire IAQBOX-D DIMENSIONS (mm)

## IAQBOX-D DIMENSIONS (mm)



### TYPICAL EXAMPLE OF A IAQBOX-D UNIT INSTALLED IN THE SUPPLY DUCTING.

Units are supplied complete with a mounting bracket for quick and easy surface mounted installation.

Access to the unit for maintenance is granted via the bottom panel. Ensure that an access panel has been allowed for maintenance to the unit.



## UNIT SPECIFICATION

The IAQBOX-S and IAQBOX-D (plus pre-filter variant codes) comprise the Q-Aire IAQBOX range and shall be manufactured in galvanised sheet metal, with an integral foam lining to reduce noise & provide internal sealing. Each inline filter shall have the ability to have an optional PM10 or PM2.5 pre-filter inserted into the filter box to be capable of additional particulate filtration; particularly from diesel vehicle fumes.

The IAQBOX shall come complete with a removable mounting bracket.

The double size IAQBOX-D range of units have the option to be configured using a single or double spigot on the outlet.

Double spigot on the outlet shall provide lower air resistance and further ducting options.

The IAQBOX shall come complete with a single carbon cartridge of plastic construction, containing two 30mm (approx.) beds of activated carbon pellets providing a large surface to filter the airflow.

The filters shall be easily removed and replaced when required. The filter shall have a minimum efficiency of between 96% and 99.5% effectiveness in the removal of Nitrogen Oxides/Dioxides.

The unit efficiency shall be confirmed and independently verified by a BRE (Building Research Establishment) test method and the information shall be provided by the filter manufacturer for approval.

The activated carbon shall have at least the following minimum qualities:

BULK DENSITY	KG/M <sup>3</sup>	480 (+/-5%)
Nominal diameter of cylindrical pellets	mm	4.0
Nominal length of cylindrical pellets	mm	8.0
Moisture content (approx.)	%	3
Crush strength (minimum)	kg	2
Removal capacity for Cl <sub>2</sub> of own weight	%	10
Minimum design efficiency	%	99.5
Typical air velocity	m/s	0.3 - 2.5
Suitable for relative air humidities	%	10 - 95
Temperature range	°C	-20 - +51

The unit shall be suitable for 220 x 90mm ducting.

The unit shall be installed in conjunction with the manufacturer's installation and maintenance guidelines.

The unit shall be offered with a 5 year warranty;  
1 year parts and labour, remaining years parts only.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled or not installed, commissioned and maintained in accordance with the details contained in the I&M manual and general good practice.





**FOR MORE INFORMATION**

[www.nuaire.co.uk](http://www.nuaire.co.uk)

**COMMERCIAL**

[www.nuaire.co.uk/commercial](http://www.nuaire.co.uk/commercial)

**AIR HANDLING UNITS**

[www.nuaire.co.uk/boxerahu](http://www.nuaire.co.uk/boxerahu)

**BIM**

[www.nuaire.co.uk/bim](http://www.nuaire.co.uk/bim)



Western Industrial Estate | Caerphilly | CF83 1NA

**t** +44 (0)29 2085 8200 | **f** +44 (0)29 2085 8222 | **e** [info@nuaire.co.uk](mailto:info@nuaire.co.uk)

[www.nuaire.co.uk](http://www.nuaire.co.uk)

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.

Part Number 671837 (Aug 2019, issue 5).