# Studio











# Studio

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 100m<sup>2</sup>
- up to 80% heat exchange efficiency
- variable choice of low (trickle), boost and purge speed at installation
- for ceiling, loft or void installation

- low noise levels
- low running costs
- complies with Building Regulations
   Parts L1A 2013 and F 2013
- manufactured in UK to ISO 9001
- accurate commissioning via remote LCD commissioning unit
- \* non-bypass models available

# Whole House Mechanical Ventilation with Heat Recovery - MVHR

# Studio



#### **GENERAL FEATURES**

- for 1 or 2 bedroom apartments, hotel rooms, student accommodation, extra care facilities, multi-occupancy establishments etc
- Up to 55 litre/sec at 50Pa max 59 litre/sec capacity
- sfp down to 0.91 W/l/s
- summer bypass activated when inside temperature is above 24°C (and outside temperature between 14°C and 24°C);
- frost-stat proportionally reduces intake motor speed as temperature falls - activated when the outside temperature between +2°C to -8°C.
- run-time and power outage counters
- · easy to install and maintain
- for ceiling, loft or void in-line installation
- · variable low (trickle), boost and purge options for each motor
- boost speed can be activated by a 230V switched live, or a 0-10V connection from:
  - a light switch (if more than one light switch is used, each one must be a double pole switch)
  - Remote humidistat (230V DRH240)
  - Passive infra red (230V PIRFF)
  - Thermostat (230V THM)
  - Remote switch/pull cord 230V
- very low noise levels
- low running costs
- 5 year warranty 1 year parts and labour, 4 years parts only

## TECHNICAL FEATURES

- compact low profile unit with sheet steel casing
- thermo-acoustic lining
- pre-wired for easy electrical connection
- low energy EC brushless motor with single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 50°C
- · easy to access standard, disposable G3 filters
- counter flow heat exchanger
- all models bottom access only with right or left drain

#### **CONTROL FEATURES - STANDARD**

- independent variable speed adjustment for each motor for trickle, boost and purge speeds.
- adjustable boost speed over-run timer from 0 to 30 minutes.
- adjustable boost speed delay from 0 to 5 minutes
- adjustable purge speed over-run timer from 0 to 250 minutes, pre-set to 15 minutes (adjustable at factory).
- adjustable night time boost and purge inhibitor
- integral frost-stat proportionally reduces intake motor speed as temperature falls
- · automatic summer bypass

## CONTROL FEATURES - FACTORY SET

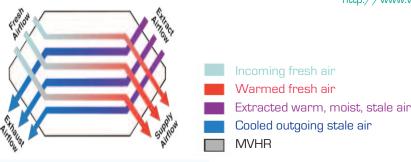
- change of ductwork handing on humidistat version (trip point can be set at manufacture)
- integral humidistat proportionally increases motor speeds with rising humidity
- O-10V connections can be added for:
  - BMS for remote motor shut-off
  - CO<sub>2</sub> detector
  - home automation system
  - external pre-heater
  - 3 speed selector switch
- purge speed over-run timer
- holiday mode for reduced speeds when property is unoccupied (factory set option) - default setting is 50% of trickle speed
- run-time and power outage counters downloadable via QR code.

#### **COMPLIES WITH**

- Part L1A 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Complies with IEC60335-2-80, LVD2006/95/CE and EMC2014/30/UE (European Directive against radio interference and electro-magnetic compatibility
- manufactured in UK to ISO 9001
- CE marked
- SAP PCDB Listed

#### SEE PAGE 106 FOR SPECIFICATION. ALSO AVAILABLE AT

http://www.vectaire.co.uk/downloads



# Studio Layout

#### **MODELS AVAILABLE:**

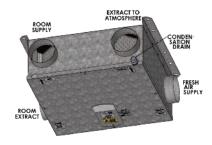
- Studio LB left drain, bypass
- Studio RB right drain, bypass
- Studio LBH left drain, bypass, humidistat
- Studio RBH right drain, bypass, humidistat
- Studio L left drain
- Studio R right drain

Tel: +44(0)1494 522333

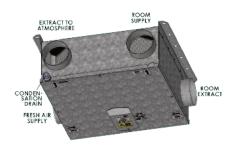
Fax: +44(0)1494 522337

- Studio LH left drain, humidistat
- Studio RH right drain, humidistat

# STUDIO - OPTION 1 (RIGHT HAND DRAIN)



STUDIO - OPTION 2 (LEFT HAND DRAIN)



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# Whole House Mechanical Ventilation with Heat Recovery - MVHR





TECHNICAL CHARACTERISTICS											
Model	Airflow I/sec					Total Power - Watts					
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%	
Studio	59	45	30	17	6	100	57	25	10	2	

Studio	S	Sound Power Levels, $L_{\scriptscriptstyle W}$ (dB) - Octave Bands Frequency Hz.								
Curve Ref		63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100% (59 l/sec)	Extract	63	65	66	66	62	59	57	49	
	Supply	68	70	71	71	67	64	62	54	1
	Breakout	66	63	58	52	42	33	25	15	36.3
80% (45 l/sec)	Extract	59	62	61	61	57	54	50	42	
	Supply	64	67	66	66	62	59	55	47	
	Breakout	62	60	53	47	37	28	18	8	31.8
60% (30 l/sec)	Extract	53	57	55	55	50	47	41	32	
	Supply	58	62	60	60	55	52	46	37	
	Breakout	56	55	47	41	30	24	9	< 5	26.1
40% [17 l/sec]	Extract	46	50	47	47	41	37	30	18	
	Supply	51	55	52	52	46	42	35	23	
	Breakout	49	48	39	33	21	11	< 5	< 5	18.4
20% 6 l/sec)	Extract	34	38	33	33	27	22	12	3	
	Supply	39	43	38	38	32	27	17	8	
	Breakout	37	36	25	19	7	< 5	< 5	< 5	<10.0
The breakout dB(A) sound pressure values are given for hemispherical free field propagation at a distance of 3m from the unit										

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only										
		2009 Data		2012 Data						
Exhaust Terminal Configuration	Airflow [l/sec]	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency	Airflow (I/sec)	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency				
Kitchen + 1 additional wet room	15	0.91	80%	21	0.96	79%				
Kitchen + 2 additional wet rooms	21	0.92	79%	29	1.08	78%				
Kitchen + 3 additional wet rooms	27	1.03	78%	37	1.37	77%				
Kitchen + 4 additional wet rooms	33	1.22	77%							
Kitchen + 5 additional wet rooms	39	1.44	<b>77</b> %							
Figures at minimum flow rate conditions -										

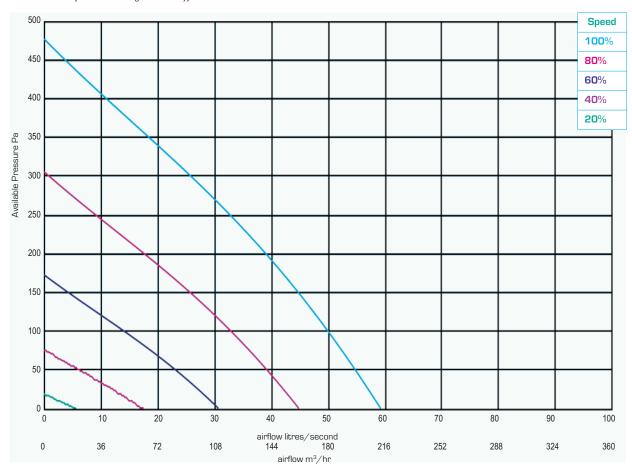
Vectaire Ltd can supply all accessories for use with these units, including product filters, air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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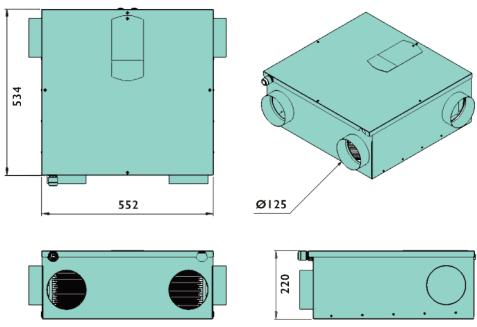
# PERFORMANCE (curves are for guidance only)



## DIMENSIONS - mm

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N.B a clearance of at least 160 mm should be allowed at the back of the unit for access to the filters, and sufficient allowance is required to remove the lid

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