

**NVHR+ 1700
now available!**



**THE
ENERGY
AWARDS 18
WINNER**



NVHR®

Multi-award winning facade-based mixing ventilation, offering enhanced natural ventilation in a slimline, compact and energy efficient unit

www.breathingbuildings.com

Creating an inspiring environment with superb air quality and thermal comfort using ultra low energy hybrid ventilation.

Benefits

The NVHR range is available in 3 sizes – NVHR 900, NVHR 1100 & NVHR 1700

- NVHR 900 – standard model
- NVHR 1100 – enhanced performance model with higher flows designed for buildings where outside noise levels are a disturbance, and where opening windows is not an option
- NVHR 1700 – a new, larger unit now able to meet the needs of a classroom where previously two units were necessary

Available as room heating versions

- NVHR+ 900
- NVHR+ 1700
- Reduces heating bills compared to traditional radiator heating
- Provides the primary heating for the room, no supplementary heating required, reducing your projects embodied carbon
- Designed to work in conjunction with a traditional boiler system or with heat pumps.

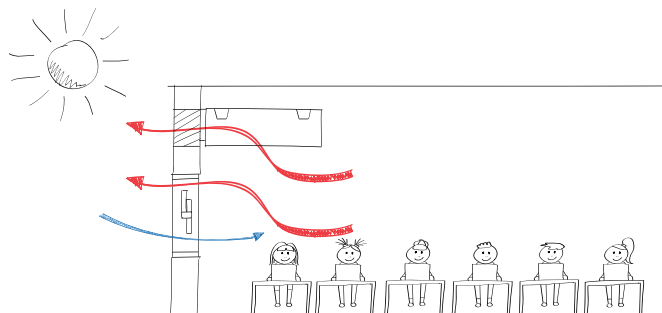
Designed to meet thermal comfort and air quality criteria of:

- BB101 (2018)
- PSBP FOS
- ESFA Annex 2F
- CIBSE TM52
- Quiet operation: fully compliant for classrooms, science laboratories and offices
- Slim, compact and lightweight saving space and easing installation
- User friendly control options
- Automated control that responds to environmental conditions
- Can be integrated into wider Building Management Systems (BMS)
- UKCA and CE certified
- Robust pre-coated steel construction in white RAL 9003 as standard – bespoke colour option available on request
- Proven performance & reliability – over 8,000 units installed in the UK (visit our web site for case studies)

Seasonal Modes of Operation

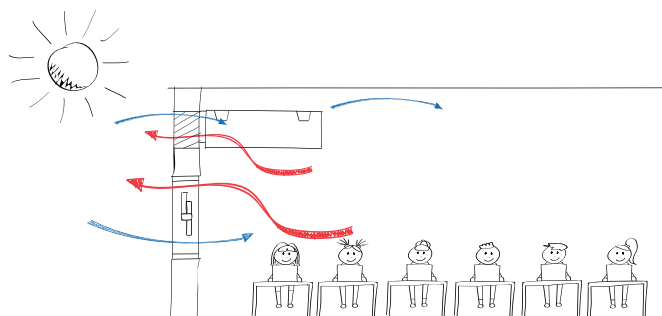
A Classroom Layout in Natural Mode

- Damper opens
- Single sided ventilation
- Works with other openings in the space



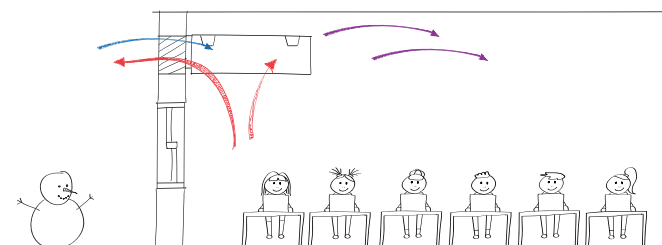
A Classroom Layout in Summer Boost

- Damper opens fully
- Air delivered to rear of the space
- Natural exhaust through the unit
- Night cooling

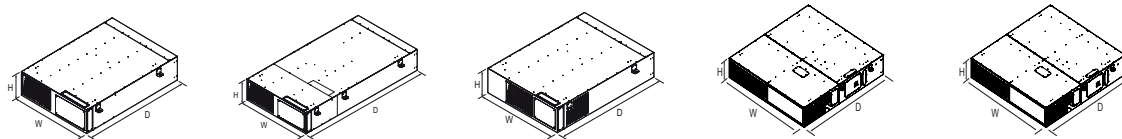


A Classroom Layout in Winter Mixing

- Damper modulates on demand
- Draught mitigation strategy
- Mixes warm room air with fresh external air
- Natural exhaust through the unit



Dimensions



	NVHR 900	NVHR +900	NVHR 1100	NVHR 1700	NVHR+ 1700
H	300 mm	300 mm	330 mm	330 mm	330mm
D	1,310 mm	1,710 mm	1,500 mm	1,800 mm	1,800mm
W	900 mm	900 mm	1078 mm	1700 mm	1700mm
Weight	56 kg	70 kg	68 kg	120 kg	125kg

Performance

			SUMMER			WINTER		
Model	Type of Room	Predicted Room Sound Pressure Level with a Pair of Units (dB)	Total Air Flow Rate (l/s)	External Static Pressure (Pa)	Specific Fan Power (W/l/s)	Total Air Flow Rate (l/s)	External Static Pressure (Pa)	Specific Fan Power (W/l/s)
NVHR 900	SEN/Music Room (60 m²)	30	95	9	0.07	168	7	0.07
	Normal Classroom (60 m²)	35	118	14	0.10	206	11	0.09
		40	147	21	0.14	253	16	0.11
	Science Classroom (90 m²)	40	155	23	0.15	266	17	0.12
		45	193	36	0.20	328	26	0.15
NVHR+ 900	SEN/Music Room (60 m²)	30	99	10	0.19	141	5	0.15
	Normal Classroom (60 m²)	35	128	16	0.22	180	8	0.17
		40	157	24	0.28	227	13	0.22
	Science Classroom (90 m²)	40	165	26	0.3	240	14	0.24
		45	205	40	0.43	296	21	0.36
NVHR 1100	SEN/Music Room (60 m²)	30	130	10	0.05	160	8	0.05
	Normal Classroom (60 m²)	35	160	14	0.06	200	11	0.07
		40	210	25	0.08	230	15	0.07
	Science Classroom (90 m²)	40	220	27	0.09	240	18	0.09
		45	260	39	0.12	280	26	0.12
NVHR 1700	SEN/Music Room (60 m²)	30*	234	4.6	0.06	270	3.6	0.06
	Normal Classroom (60 m²)	35*	288	7.3	0.06	356	7	0.09
		40*	355	12.2	0.08	409	10.3	0.12
	Science Classroom (90 m²)	40*	400	16.2	0.10	437	12.3	0.15
		45*	474	23.9	0.13	-	-	-

All values listed are for grilled units. * Based on one unit per classroom

NVHR® Installation Options

Different options available to suit your installation:

- Exposed unit, utilised when no ceiling void is available
- Ducted unit, installed within the ceiling void
- Bulkhead arrangement



Controls

	Strategy						Ancillaries					
	Fully Automatic Operation	Manual Override	Winter Mixing	Natural Mode	Summer Boost	Secure Night Cool	BMS Integration	Heating/Cooling Interlock	User Interface	Open Windows Indicator	Room Temp/CO ₂ Sensor	External Temp Sensor
Advanced Connected Controller	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ ⁺⁺

✓ Included * Unless provided by BMS + Integrated External Temp Sensor option available, please ask us about this

User Interface Options

Advanced Connected Controller

User interface providing:

- Boost mode with timing options
- Sleep mode with timing options
- Open windows prompt
- Fault indicator
- Dark mode for SEND rooms for distraction minimisation
- QR Code for easy access to user guide
- Digitally connected via cable for robust operation and accurate commissioning
- Seasonal modes of operation can be selected for ease of commissioning
- Test mode procedure for maintenance checks

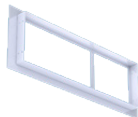


Accessories

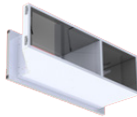
Breathing Buildings have a comprehensive range of accessories to enhance functionality or aid ease of installation.



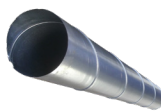
Sensors



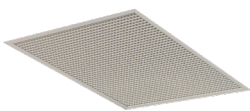
Wall & Glazing Interfaces



Louvres



Ductwork



Grilles

Contact Breathing Buildings dedicated design services team to help you select the best product solution to meet your application requirements.



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