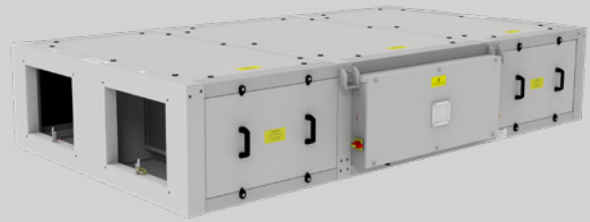


# Sentinel Apex HR15

- Very low sound levels independently tested and verified by SRL
- Low SFP utilising IE 5 equivalent motors
- High Heat Recovery Efficiency - up to 93% (EN308)
- Automatic summer bypass sized to eliminate performance loss
- ePM10 50% and ePM1 55% filters as standard (M5 / F7 equivalent)
- Filter access from bottom and side as standard
- Digital on board controller and remote room controller as standard
- App connectivity as standard
- Wired and Wireless communication sensors available
- Integral condensate tray and pump
- Electric frost protection heater as standard



## Performance simply delivered with more as standard

Vent-Axia's Sentinel Apex range of commercial heat recovery units with up to 93% EN308 heat recovery efficiency, low sound levels and low specific fan powers the range provides high levels of performance efficiently. A new advanced control system that provides on board control, in room control and App based control full functionality commissioning and monitoring is simply provided. This control can be coupled with Vent-Axia's new range of sensors with wired or wireless communication providing close control of, and monitoring of your indoor air quality. Sensors include CO<sub>2</sub>, humidity and temperature and provide both proportional and switch control.

The Sentinel Apex HR15 unit is manufactured with a double skinned pentapost construction incorporating aluzinc frames and panels. The panels are acoustically and thermally treated with 90kg/m<sup>3</sup> high efficiency acoustic and thermally insulating foam (fire retardant to BS476 Part 7 Class 1 & Part 6 Class O). The construction of the unit, IPX4, allows for internal and external mounting as standard, however, the roof assembly should be included for full external locations.

The housing is designed to be as compact as possible for concealed false ceiling applications with top and bottom access panels for maintenance. Access panels are sized to enable single person maintenance.

The fans utilised in the Sentinel Apex HR15 are the latest EC/DC external rotor motors specifically chosen for their low power consumption and low noise characteristics. The assembly is dynamically balanced to DIN ISO 1940 Grade 6.3. Ball bearings are greased for life. Insulation is Class 'B' (from -25°C to +60°C). All models incorporate internal electronic overload protection and a soft start function.

The Sentinel Apex HR15 is complete as standard with ISO ePM10 50% (M5) extract filter and ISO ePM1 55% (F7) supply, complete with a filter change warning. Filters have been selected to fully comply with the requirements of ISO16890 whilst having low pressure loss characteristics.

An integral electric frost heater is included to provide frost protection of the cell and filters down to -10°C. The integral controls also allow this heater to be utilised as a top up heater.

The unit is complete with an integral summer bypass facility which has

been designed to provide full bypass without impact to the airflow or power consumption of the unit whilst in bypass mode.

Airflow and power consumption tested in accordance with BS EN 5801. Sound data derived from independent testing at Sound Research Laboratories in accordance with EN ISO 3741:2010. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of 2 x 10<sup>-5</sup> Pa. The inlet/outlet sound power level spectra figures are dB with a reference of 10<sup>-12</sup> watts.

An integral condensate tray is fitted along with an internal quiet running high quality pump allowing for removal of the condensate via a 10mm condensate pipe.

To facilitate normal access and maintenance to the unit there are both side and bottom access panels as standard. Should it be required, all panels are removable allowing access and removal of the heat recovery cell and all other components. A lockable isolator is fitted to the control panel preventing accidental operation whilst any maintenance is being carried out.

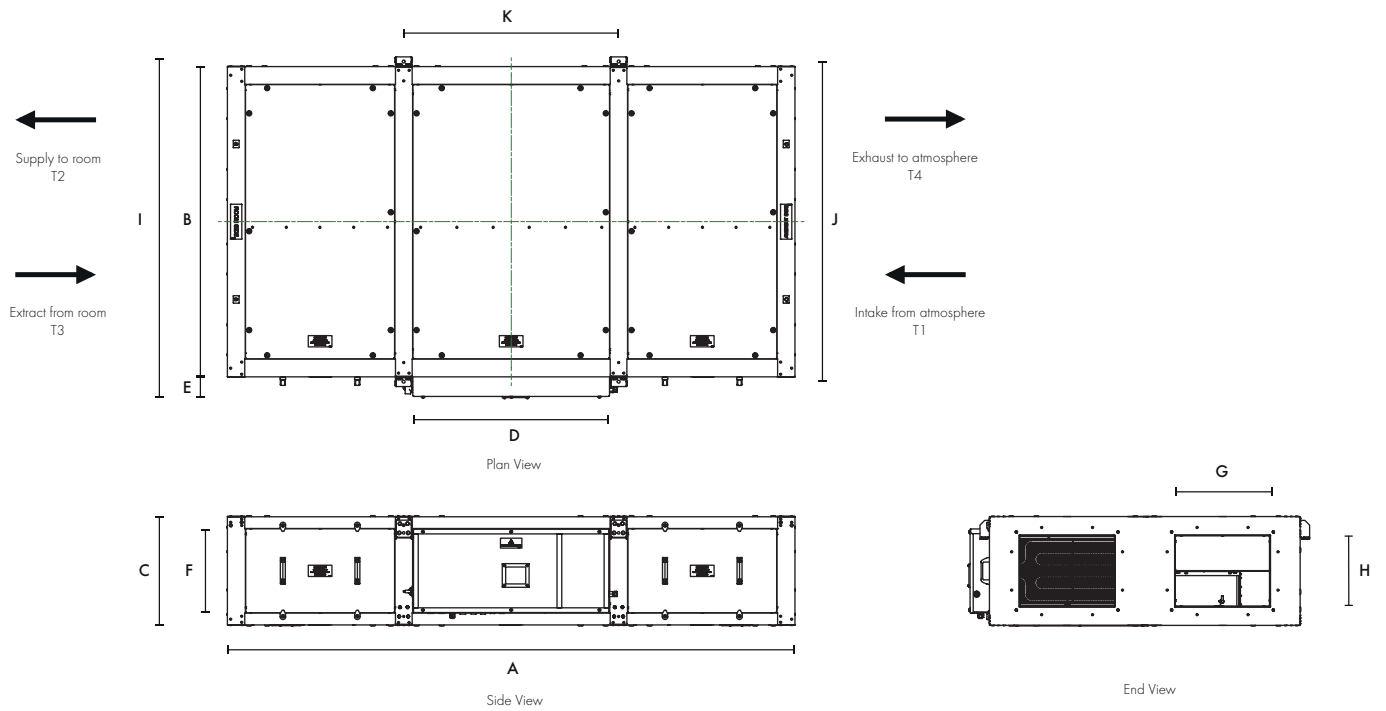
The electrical supply for the unit is 230V +/- 10% / 50/60Hz / 1ph. A 24V DC power is available from the unit for powering any of the matched sensors and switches.

The Sentinel Apex HR15 unit is fitted with an integrated control system as standard with a purpose designed user interface controller incorporating an alphanumerical 2 line display with 4 button keypad for fan status and a basic commissioning setup mounted within the control panel. A remote HMI is also included for that can be mounted within the room that is being ventilated. This allows for local monitoring of the unit along with the commissioning set-up.

App based control is also available via the Vent-Axia Connect App. This provides detailed commissioning and monitoring information and the ability to control the unit remotely.

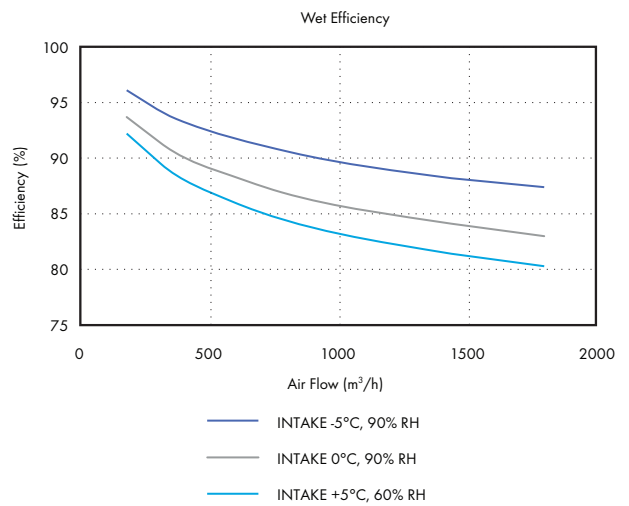
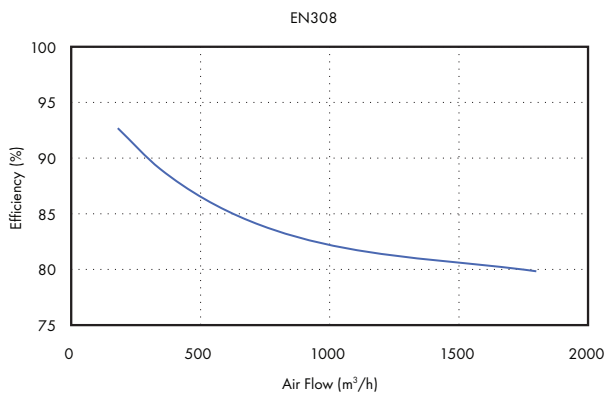
A full range of sensors is available including humidity, temperature and CO<sub>2</sub> monitoring. These sensors are available for both wired and wireless communication with the wireless sensors being either local mains or battery powered.

Dimensions (mm)

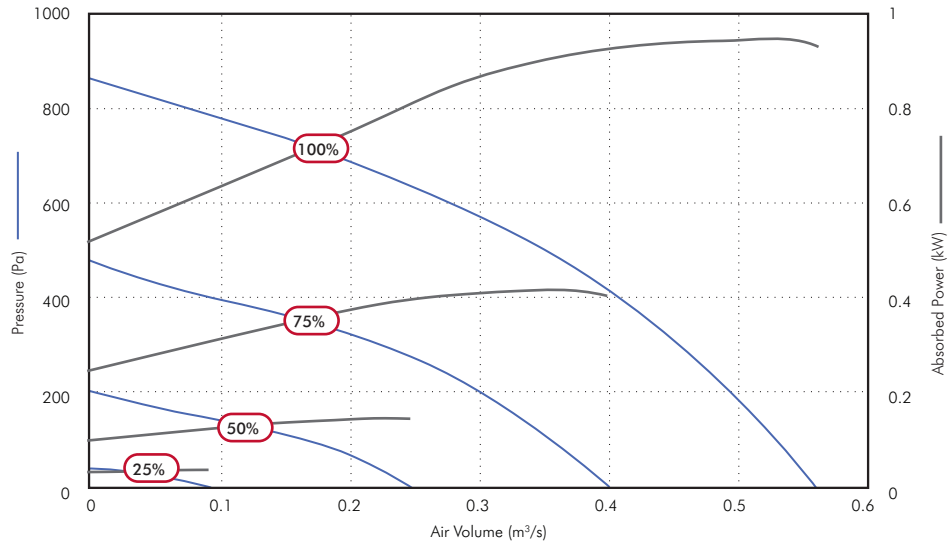


A (LENGTH)	B (WIDTH)	C (HEIGHT)	D	E	F	G	H	I	J	K	kg
2400	1312	460	831	88	356	400	300	1440	1353	908	348

Heat Recovery Efficiency



## Performance Guide - Sentinel Apex HR15



Speed	Airflow, m³/s @ Pa									Fans F.L.C.	Supply Voltage	Frost Heater	Unit Rated Current
	0	25	50	100	150	200	300	400					
100%	m³/s	0.56	0.55	0.54	0.52	0.50	0.49	0.45	0.40	5.0A	230/1/50	5.6kW	29.0A
	SFP	1.49	1.53	1.56	1.59	1.67	1.71	1.85	2.06				
	kW	0.83	0.85	0.85	0.84	0.84	0.84	0.84	0.83				
75%	m³/s	0.40	0.39	0.38	0.35	0.33	0.30	0.22	0.09				
	SFP	0.91	0.96	0.97	1.06	1.13	1.23	1.55	2.93				
	kW	0.36	0.38	0.37	0.37	0.37	0.36	0.34	0.27				
50%	m³/s	0.25	0.23	0.21	0.16	0.09							
	SFP	0.51	0.56	0.60	0.76	1.20							
	kW	0.13	0.13	0.13	0.12	0.11							
25%	m³/s	0.09	0.04										
	SFP	0.32	0.63										
	kW	0.03	0.03										

## Sound Data - Sentinel Apex HR15

Speed	Test Mode	Sound Pressure level @ 3.0m dBA								
		63	125	250	500	1k	2k	4k	8k	
100%	Breakout	65	59	67	59	51	48	41	40	38
	Exhaust T4	63	60	46	64	62	57	46	36	
	Extract T3	69	67	80	72	64	61	57	57	
	Intake T1	70	67	79	69	65	62	57	53	
	Supply T2	63	59	74	65	62	57	46	40	
75%	Breakout	59	57	62	52	43	38	32	32	30
	Exhaust T4	57	57	65	57	53	47	36	29	
	Extract T3	64	64	72	65	56	53	48	50	
	Intake T1	63	65	74	62	56	52	47	47	
	Supply T2	56	56	67	57	53	58	36	33	
50%	Breakout	53	57	46	40	32	27	23	24	22
	Exhaust T4	50	53	48	43	41	35	24	24	
	Extract T3	55	61	60	53	45	40	40	34	
	Intake T1	56	62	60	51	45	40	38	28	
	Supply T2	49	52	50	43	41	35	25	24	
25%	Breakout	49	51	40	31	27	23	20	24	14
	Exhaust T4	49	38	34	25	24	22	17	24	
	Extract T3	52	42	42	31	26	26	18	24	
	Intake T1	51	42	41	30	27	23	18	23	
	Supply T2	47	36	33	25	24	21	16	23	

For full sound and performance data please use our Fan Selection Program [www.vent-axia.com/fanselector/product/apex](http://www.vent-axia.com/fanselector/product/apex)

Sound data derived from independent testing at Sound Research Laboratories in accordance with EN ISO 3741:2010. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of  $2 \times 10^{-5}$  Pa. The inlet/outlet sound power level spectra figures are dB with a reference of  $10^{-12}$  watts.

## Accessories

### Attenuator



Single skinned attenuators purpose designed for the Apex Heat Recovery range to minimise in duct noise. Attenuators are supplied in standard lengths of 900mm, 1200mm and 1500mm, constructed from Galvanised steel with profiled perforated sheet internal, mineral wool sound absorbing material and 30mm profiled flanges for duct and unit mounting. Data has been obtained by testing in accordance with BS EN ISO7235:2009.

Stock Ref.	Dimensions (mm)			kg	Insertion Loss dB						m <sup>3</sup> /hr @ Pa						
	Length	Width	Height		63	125	250	500	1k	2k	4k	8k	300	600	1000	1500	2000
ATT900-HR15	900	400	300	18	2	3	8	15	27	21	14	10	1	3	8	17	30
ATT1200-HR15	1200	400	300	23	2	4	10	19	36	24	16	12	1	3	8	18	32
ATT1500-HR15	1500	400	300	34	2	5	12	24	44	28	19	14	1	3	9	20	36

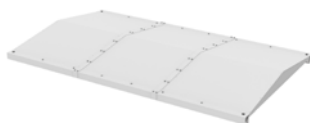
### Duct mounted Heating / Cooling



Rectangular duct mounted heater battery with either electric heating complete with integral thyristor controls, or LPHW water heating, each designed to provide approximately 10°C temperature rise. Chilled water cooler also available with integral condensate tray. Note waterside controls are not included.

Stock Ref.	Type	Dimensions (mm)			kg	Heater rating kW	Electrical supply	Water Temp			m <sup>3</sup> /hr @ Pa				
		Length	Width	Height				Flow	Return	Connection	300	600	1000	1500	2k
EHB-HR15	Heater with controls	300	400	300	7	5.00	230/1/50	N/A	N/A	N/A	1	3	8	18	32
HWB-HR15	HR 15 Duct mounted Rectangular LPHW heating battery	200	400	310	8	5.03	N/A	80°C	60°C	1/2"	1	3	8	18	32
CWB-HR15	HR 15 Duct mounted Rectangular water cooling battery	200	500	350	8	6.23	N/A	6°C	12°C	3/4"	1	3	8	18	32

### Roof Assembly



Stock Ref	Length mm	Width mm	Height mm	Weight kg
WRF-HR15	2400	1455	95	52

### Intake / Exhaust Cowl



Weather inlet/discharge cowl for external mounting (one required for each airstream).

Stock Ref	Length mm	Width mm	Height mm	Weight kg
499140	394	402	380	6

### Transformation Piece



Rectangular to round transformation piece designed to fix directly to the unit or any of the specific HR15 duct accessories to enable connection to 315mm round ducting.

Stock Ref	Length mm	Width mm	Height mm	Weight kg
495296	325	400	300	4

### Flexible Connection



Stock Ref	Length mm	Width mm	Height mm	Weight kg
497020	130	400	300	4