

Vent-Axia Sentinel Totus D-ERV

Demand Energy Recovery Ventilation



Ventilation Lo-Carbon Energy saving solutions

Manufactured with an aluminium frame construction with double skinned panels fitted with 60kg/m³ thermal acoustic insulation. All external panels are plastisol coated making the unit suitable for internal or external applications (IPX4). An optional inlet cowl is available for roof mounting applications if required.

The casing includes an inclined inlet and bellmouth entry which directs the incoming air to the impeller with minimal turbulence. The result is better air management through the unit, less noise, higher efficiency and an increased performance.

The housing is designed to be as compact as possible for concealed false ceiling applications and Sentinel Totus D-ERV, Demand Energy Recovery casings incorporate side access panels for maintenance.

Impellers

All Sentinel Totus D-ERV units feature low energy, Class 1, EC/DC external rotor motor and backward curved impeller assemblies specifically chosen for performance and non-overloading 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 soft start function.

Filters

All Sentinel Totus D-ERV units are complete with G4 replaceable synthetic filters, complete with filter change warning.

Electrical

Every Sentinel Totus D-ERV unit is fitted with integrated controls and a purpose designed common user interface controller incorporating a 16-character backlit alpha numerical x 2 line display with 4 button membrane keypad for fan status and commissioning set up. This can be removed and remotely fixed if required. The unit also incorporates a isolator that is suitable for fitting a locking device to prevent accidental operation.

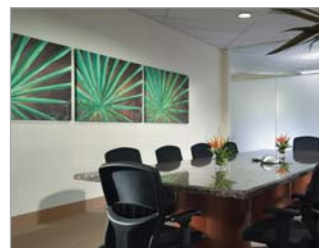
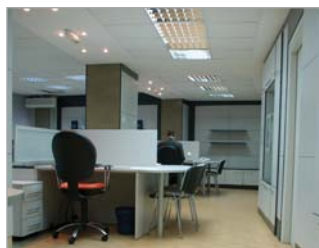
Motors are single phase 230V +/- 10% / 50/60Hz / 1ph. 24V DC power is provided from the unit for powering the matched range of Sentinel Demand Ventilation switches and sensors.

Performance/Sound

Extensively tested to BS848 parts 1 & 2. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at reference level of 2 x 10⁻⁵ Pa. The inlet/outlet sound power level spectra figures are dB with a reference of 10⁻¹² watts.

Models

Sensor Control	Constant Pressure
Mini	Mini/CP
Midi	Midi/CP
Maxi	Maxi/CP



Features and Benefits

- 3 unit sizes covering 500-2000m³/h:
 - Mini** - nominally 700m³/h
 - Midi** - nominally 1000m³/h
 - Maxi** - nominally 2000m³/h
- Sentinel demand ventilation control.
- Low energy EC/DC motors.
- Internal or external mounting IPX4.
- 90% energy recovery cell.
- Independently Tested to EN 308.
- Proportional or constant pressure control.
- Performance tested to BS848 Parts 1 & 2.
- Manufacture controlled to BS EN ISO 9001.

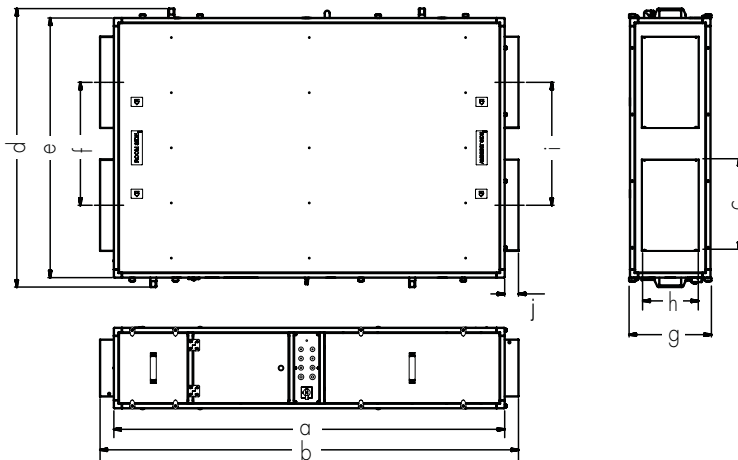


- allowing you to help the environment

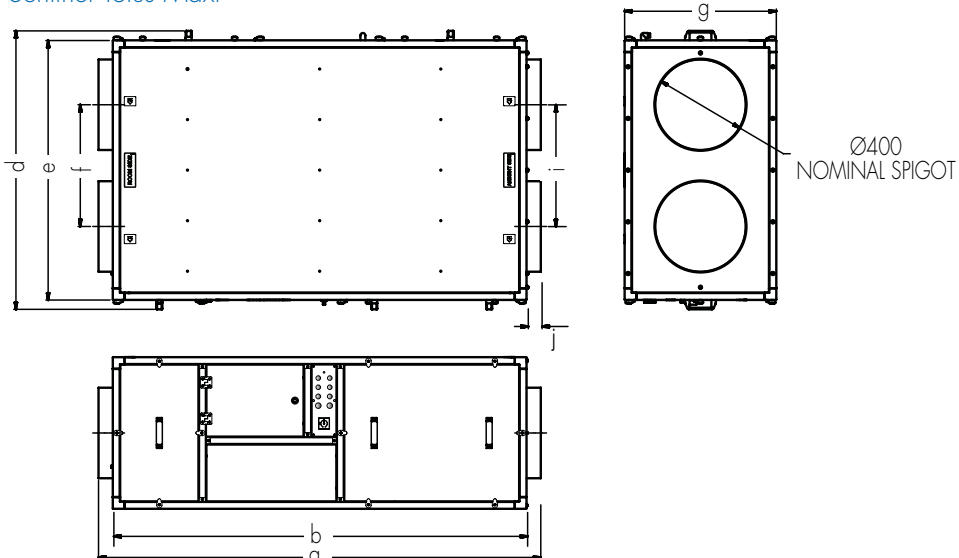
Dimensions (mm)

Model	Dimensions in mm								
	a	b	c	d	e	f	g	h	i
Mini/Midi	1700	1820	400	1212	1130	535	358	250	60
Maxi	1800	1924	-	1212	1130	530	660	-	60

Sentinel Totus Mini/ Midi



Sentinel Totus Maxi



Sentinel Totus D-ERV

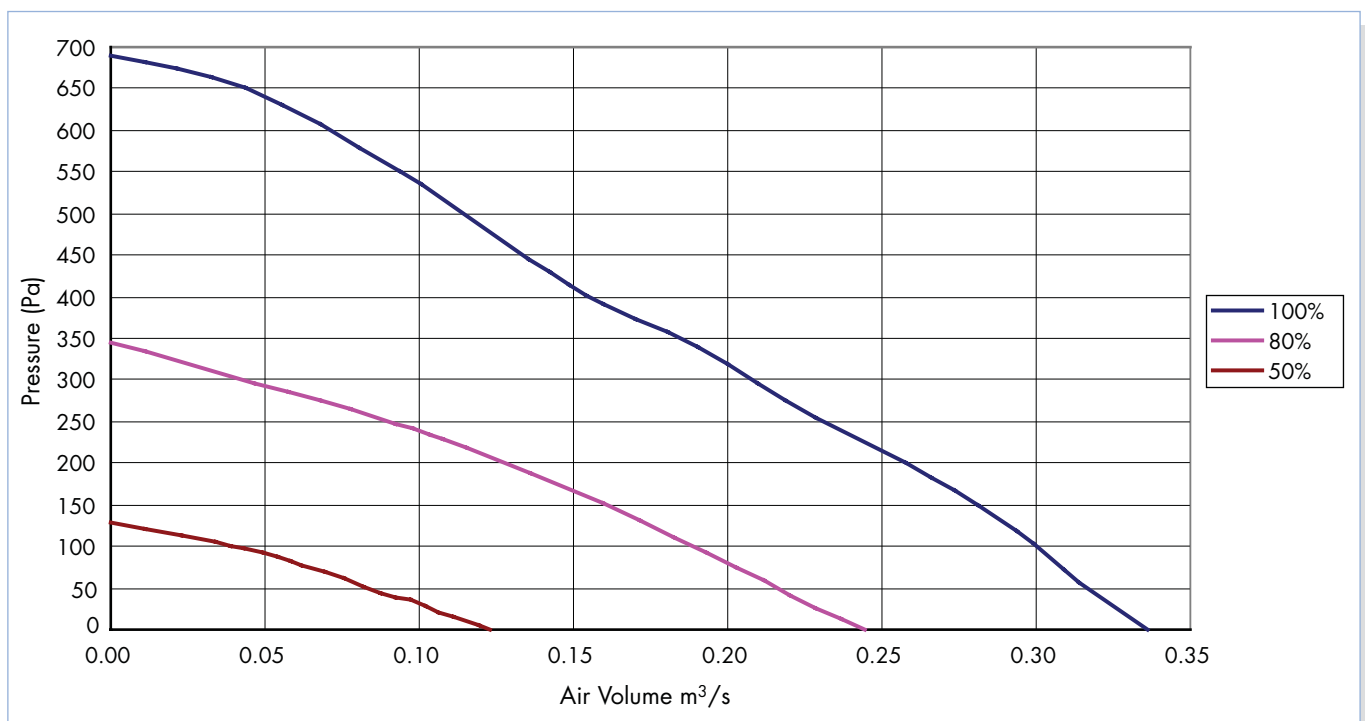
Midi Model

Sound Data

Speed	Test Mode	Octave Band Frequency SWL								dB(A) @3m
		63	125	250	500	1k	2k	4k	8k	
100%	Intake	65	74	75	70	67	64	62	56	37
	Supply	60	64	73	66	61	54	45	42	
	Discharge	70	75	80	77	75	72	68	61	
	Extract	62	63	71	64	58	52	43	40	
80%	Intake	61	75	67	64	61	59	55	51	35
	Supply	57	66	66	62	56	49	39	39	
	Discharge	66	73	72	72	70	66	61	55	
	Extract	57	68	63	59	53	46	37	38	
50%	Intake	59	62	55	54	51	46	41	33	28
	Supply	51	58	53	49	45	38	32	38	
	Discharge	59	66	61	60	58	54	48	39	
	Extract	51	56	50	48	43	35	31	38	
25%	Intake	45	44	44	32	27	24	23	29	19
	Supply	46	41	41	32	31	30	31	39	
	Discharge	48	45	45	39	36	32	27	29	
	Extract	44	41	40	31	31	30	31	38	

Performance Guide

Speed	Airflow, m ³ /s @ Pa									Fans FLC	Frost Heater kW
	0	50	100	150	200	250	300	350	400		
100%	0.336	0.325	0.300	0.275	0.260	0.235	0.210	0.185	0.158	3	2
SFP	1.82	1.89	2.04	2.23	2.36	2.61	2.92	3.31	3.88		
80%	0.244	0.215	0.190	0.160	0.130	0.090				1.5	2
SFP	1.30	1.47	1.67	1.98	2.44	3.52					
50%	0.123	0.080	0.040							0.5	2
SFP	0.82	1.26	2.52								



Maxi Model

Sound Data

Speed	Test Mode	Octave Band Frequency SWL								dB(A) @3m
		63	125	250	500	1k	2k	4k	8k	
100%	Intake	67	72	75	72	73	71	68	62	41
	Supply	62	65	75	66	65	61	53	46	
	Discharge	67	70	83	72	75	73	70	65	
	Extract	62	64	74	63	60	54	44	39	
80%	Intake	64	71	79	70	69	68	65	58	40
	Supply	60	64	77	63	62	57	49	43	
	Discharge	65	69	82	69	72	70	67	59	
	Extract	59	63	75	60	57	51	42	38	
50%	Intake	56	68	57	57	57	53	49	40	30
	Supply	52	66	57	51	50	44	35	31	
	Discharge	56	64	61	56	59	57	50	41	
	Extract	52	62	52	46	43	37	28	28	
25%	Intake	48	47	40	37	35	29	23	29	20
	Supply	46	43	39	33	31	25	23	29	
	Discharge	46	45	42	40	41	34	25	29	
	Extract	48	41	37	31	26	23	23	29	

Performance Guide

Speed	Airflow, m³/s @ Pa													Fans FLC	Frost Heater kW
	0	50	100	150	200	250	300	350	400	450	500	550	600		
100%	0.587	0.580	0.540	0.520	0.510	0.480	0.430	0.415	0.400	0.365	0.340	0.310	0.268	5	4
SFP	1.80	1.82	1.96	2.03	2.07	2.20	2.46	2.54	2.64	2.89	3.11	3.41	3.94		
80%	0.480	0.460	0.430	0.400	0.380	0.345	0.315	0.280	0.240	0.220				3	4
SFP	1.37	1.42	1.52	1.64	1.72	1.90	2.08	2.34	2.73	2.98					
50%	0.228	0.190	0.160	0.125	0.070									1	4
SFP	0.86	1.03	1.22	1.56	2.79										

