

New Improved Range - \*5 Year Warranty

CI/SfB

(57.7)

1st edition



eTurboProp™



**Vent-Axia®**

# eTurboProp™ High Pressure Axial Fans

**\*5 year warranty**



## Ventilation New Improved Range

More efficient kitchen filtration systems and ever larger duct runs have created a need for a new generation of high performance Axial fans, suitable for higher working pressures.

The range offers a new alternative to the H & V industry. The all-new eTurboProp is a revolutionary design cased axial. Equivalent in size to the old unit, but developing more pressure/airflow performance, higher efficiency & offering substantial running cost reductions. Available in four sizes: 450, 500, 560 and 630mm diameter with a performance from 0.65m<sup>3</sup>/s to 5.93m<sup>3</sup>/s and pressure development up to 600 Pa. Ensuring a compact design, the units have been constructed from a single sheet of steel, with a single 2 pole motor and axial impeller mounted within the length of the unit casing. The unit is manufactured from electro welded steel with an epoxy paint finish. Factory assembled to BS EN ISO 9001 ensuring a quiet and vibration free unit.

All sizes are protected with a tough black epoxy paint finish for those harsh environmental conditions, internally or externally. Ensuring ease of installation the motor is wired directly into a single IP65 terminal box.

### Axial Impellers

The impeller is manufactured in die-cast aluminium and fitted with narrow profiled blades, which provide the maximum efficiency at the maximum airflow.

### Motors

Specifically designed and styled for this range of fans. Ball bearings are greased for life and allow the fans to be installed at any angle. Rotors are dynamically balanced to ISO 1940. Motors are protected to IP65 against dust and water jets complying with BS EN 60529. They have ribbed aluminium body castings for efficient cooling. Motor insulation is Class 'H' (from -40°C to +70°C). All models are suitable for speed control by either electronic or voltage reduction controllers. All 3-phase models are suitable for speed control by frequency inverter.

### Electrical

Single phase 220-240V/50 Hz. Capacitor start and run. Three phase 380V-415V/50Hz. All motors are fitted with Standard Thermal Overload Protection (S.T.O.P), which should be wired into all controller circuits and into starter contactors.

### Terminal Box

IP65 terminal box is supplied with all models with 20mm PGI entry.

### Performance

The fan performance is in accordance with tests to BS 848 Part 1 1980.

### Sound Levels

Fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2. 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 (20 micro-Pascal). The sound power level spectra figures are dB with a reference level of 10<sup>-12</sup> Watts (1 pico-watt).

To ensure minimum noise levels during speed control, an auto transformer speed control is recommended.

### Accessories

Electronic Speed Controllers  
Auto Transformer Speed Controllers  
Inverter Speed Controllers  
Ancillary Packs  
Cased Attenuators  
Mounting Feet  
Wire Inlet Guard  
Coupling Flanges

### Warranty\*

Standard 2 year warranty, extendable to 5 years by registration subject to installation and maintenance in accordance with fitting and operating instructions supplied with product.



## Features and Benefits

- Die cast aluminium impellers.
- Compact in size, equivalent to standard long case axial fans.
- Available from 450 to 630 diameter, 1 or 3 phase.
- All models Speed controllable by either electronic/voltage control or Frequency Inverters ( 3 phase)
- All units fully protected to IP65.
- Motor insulation Class H, suitable for operating temperatures from -40°C to +70°C.
- Motors protected with Standard Thermal Overload Protection.
- Manufacture controlled to BS EN ISO 9001.
- Performance tested to BS 848 Parts 1 & 2.

## Performance Guide

### 1 Phase 2 Pole

m<sup>3</sup>/s at Pa

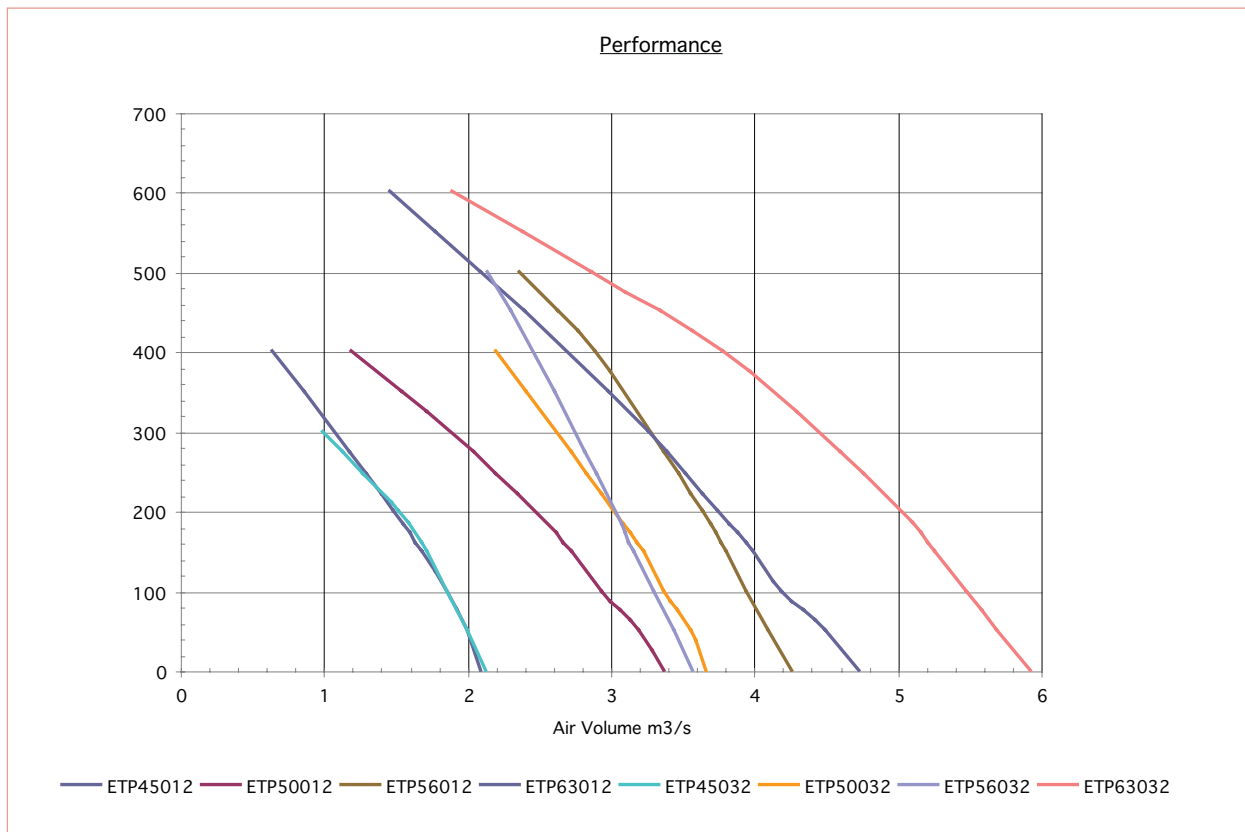
Unit Code	Nom. RPM	Phase	0	50	100	150	200	300	400	500	600	Motor kW	Amps S.C.	Amps F.L.C.
ETP45012	2896	1	2.1	2	1.86	1.69	1.49	1.08	0.65			1.1	29	7.3
ETP50012	2610	1	3.38	3.2	2.94	2.73	2.47	1.89	1.2			1.5	38	9.1
ETP56012	2884	1	4.27	4.1	3.95	3.81	3.64	3.28	2.89	2.37		2.2	66	15.3
ETP63012	2884	1	4.74	4.5	4.2	4	3.75	3.27	2.7	2.1	1.47	3	80	18

### 3 Phase 2 Pole

m<sup>3</sup>/s at Pa

ETP45032	2887	3	2.13	2	1.86	1.72	1.52	1				1.1	11	2.6
ETP50032	2859	3	3.67	3.56	3.38	3.23	3.02	2.63	2.2			1.5	17	3.5
ETP56032	2876	3	3.57	3.45	3.3	3.16	3.03	2.75	2.46	2.15		2.2	32	4.9
ETP63032	2886	3	5.93	5.69	5.49	5.26	5.03	4.45	3.78	2.87	1.9	4	66	8.7

S.C. = STARTING CURRENT  
F.L.C. = FULL LOAD CURRENT



# eTurboProp™ High Pressure Axial Fans

## Sound Data

### Sound Power Level Spectra dB (re 10<sup>-12</sup>Watts)

1 Phase 2 Pole									dB(A) @
Unit Code		125	250	500	1k	2k	4k	8k	3m
ETP45012	Inlet/Outlet	70	71	79	82	82	79	74	67
ETP50012	Inlet/Outlet	70	76	79	81	81	80	75	67
ETP56012	Inlet/Outlet	79	94	97	99	98	94	86	78
ETP63012	Inlet/Outlet	79	90	98	99	98	97	91	81

3 Phase 2 Pole									dB(A) @
Fan data		125	250	500	1k	2k	4k	8k	3m
ETP45032	Inlet/Outlet	63	73	80	82	83	81	76	68
ETP50032	Inlet/Outlet	69	80	83	84	85	84	80	70
ETP56032	Inlet/Outlet	86	98	97	97	92	87	80	75
ETP63032	Inlet/Outlet	79	90	98	98	99	97	91	81

Published dB(A) figures are free field sound levels at 3m with spherical propagation at a reference level of 2x 10<sup>5</sup> Pa. The free field sound power level spectra figure are dB with reference of 10<sup>-12</sup> Watts. To ensure minimum noise levels during speed control an auto transformer or inverter speed controller is recommended.

### Attenuator Insertion Losses

Dia	63	125	250	500	1k	2k	4k	8k
450	2	4	6	14	17	12	10	6
500	3	4	7	14	17	14	11	7
560	3	4	8	15	18	14	11	7
630	3	4	8	16	18	14	11	7

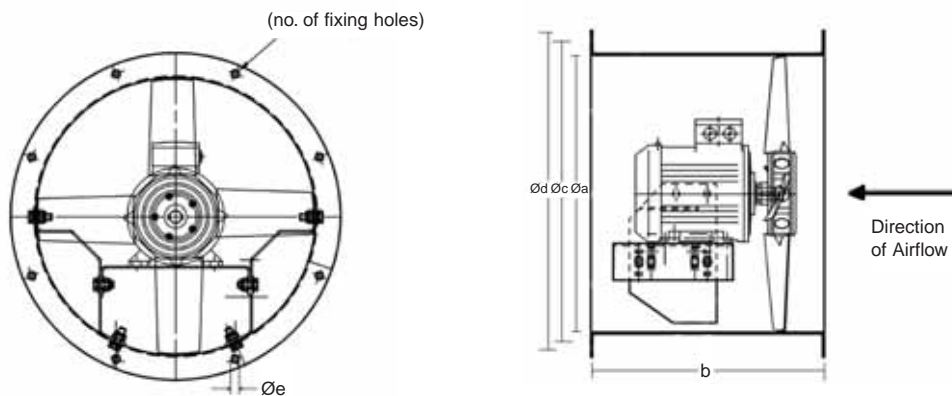
### Attenuator Fitted with Pod Insertion Losses

Dia	63	125	250	500	1k	2k	4k	8k
450	4	8	14	20	28	26	23	19
500	4	8	14	20	29	26	23	19
560	4	9	14	20	29	26	23	19
630	4	9	14	20	29	26	23	19

eTurboProp™

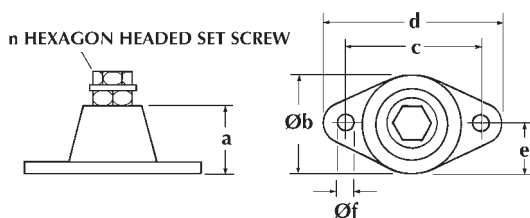
# eTurboProp™ High Pressure Axial Fans

## Dimensions



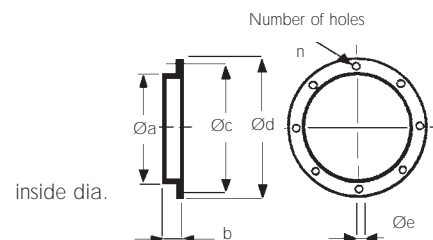
Size	Øa	b	Øc	Ød	Øe	n	KG approx
450	450	375	500	537	12	8	41
500	500	375	560	595	12	12	46
560	560	520	620	655	12	12	59
630	630	520	690	725	12	12	64

Published dB(A) figures are free field sound levels at 3m with spherical propagation at a reference level of  $2 \times 10^5$  Pa. The free field sound power level spectra figure are dB with reference of  $10^{12}$  Watts. To ensure minimum noise levels during speed control an auto transformer or inverter speed controller is recommended.



### Anti-Vibration Mounts

Stock Ref. No.	a	Øb	c	d	e	Øf	n	Max load kg
10523033	27	37	54	67	18.5	7	M8	23

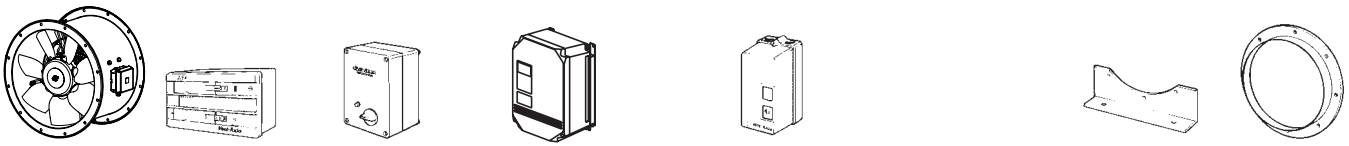


### Coupling Flange

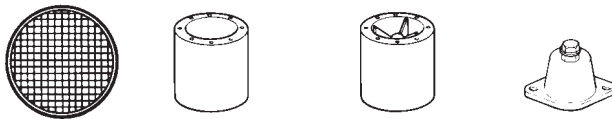
Stock Ref. No.	Øa	b	Øc	Ød	Øe	n
10506450	450	60	500	537	12	8
10506500	500	60	560	595	12	12
10506560	560	75	620	655	12	12
10506630	630	75	690	725	12	12

# eTurboProp™ High Pressure Axial Fans

## Accessories



Stock Ref. No.	Electronic Controller Stock Ref. No.	Auto Transformer Stock Ref. No.	Inverter Kit 3ph in/out Stock Ref. No.	D.O.L. Starter Overload Stock Ref. No.		Ancillary* Pack Stock Ref. No.	Mounting Feet (pair) Stock Ref. No.	Coupling Flange Stock Ref. No.
ETP45012	10303110A	10314113	-	10311240A	10312075A	10513450	10503450	10506450
ETP45032	-	10314304	1032030204	10311415A	10312050A			
ETP50012	10303110A	10314113	-	10311240A	10312100A	10513500	10503500	10506500
ETP50032	-	10314304	1032030301	10311415A	10312050A			
ETP56012	10314120*	-	-	10311240A	10312230A	10513560	10503560	10506560
ETP56032	-	10314307	1032030504	10311415A	10312075A			
ETP63012	10314120*	-	-	10311240A	10312260A	10513630	10503630	10506630
ETP63032	-	10314311	1032035003	10311415A	10312100A			



Size	Inlet Wire Guard Stock Ref. No.	Case Axial Attenuator Stock Ref. No.	Case Axial Attenuator incl. Pod Stock Ref. No.	Anti-Vibration Mounts Stock Ref. No.
450	10505450	10514450	10500450	10523033
500	10505500	10514500	10500500	10523033
560	10505560	10514560	10500560	10523033
630	10505630	10514630	10500630	10523033

\* Ancillary Packs consist of:  
 4 Anti-Vibration Mounts  
 2 Matching Flanges  
 2 Mounting Feet  
 2 Flexible Connections

Guards: Some installations may occur where additional safety parts are needed, to ensure safety in operation. For example, the unit may be fitted at the inlet or outlet end of a ducted ventilation system, thereby exposing the impeller/motor to unguarded access. In this event, the installer must fit a safety guard complying to current regulations. These guards are available as an optional extra.

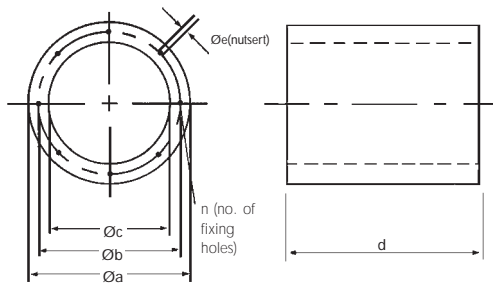
\* 20 Amp single phase speed controller kit comprising: IP54 controller and speed control potentiometer

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## Accessories

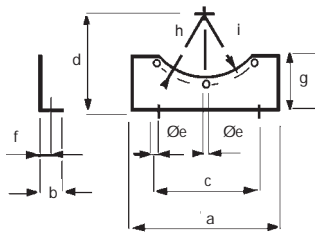
### Accessories Dimensions



#### Case Axial Attenuator

Stock Ref. No.	Øa	bØ	Øc	d	Øe*	n	kg approx	Fitted with pod kg approx	Free area m <sup>2</sup> without pod
10514450	550	500	450	675	M10	8	50	73	0.15904
10514500	600	560	500	750	M10	12	59	87	0.19635
10514560	660	620	560	840	M10	12	70	102	0.24630
10514630	730	690	630	940	M10	12	82	120	0.31172

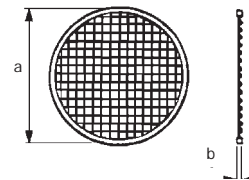
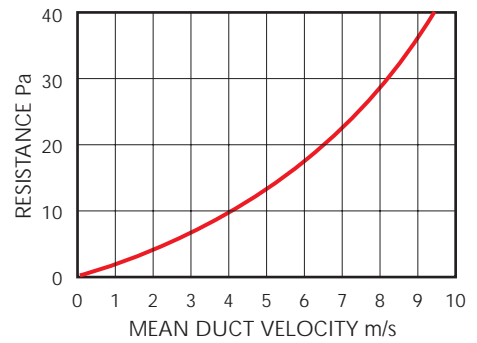
\*Threaded hole to take bolt



#### Mounting Feet

Stock Ref. No.	a	b	c	d	Øe	f	g	h	i
10503450	384	24	315	315	12	14	155	250	238
10503500	425	24	315	315	12	14	135	280	268
10503560	475	24	355	355	12	14	155	310	298
10503630	520	24	400	400	12	14	175	345	333

#### Resistance Graph For Case Attenuator Fitted With Pod



#### Inlet Wire Guard

'K' factor loss 0.25

Stock Ref. No.	Øa	b
10505450	525	3
10505500	595	3
10505560	655	3
10505630	725	3





By Appointment to H.M. The Queen  
Suppliers of Unit Ventilation Equipment  
Vent-Axia, Crawley, West Sussex

# Vent-Axia®

## VENT-AXIA CONTACT NUMBERS

Free technical, installation and sales advice is available

### Sales Centre:

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Sales Tel: 0844 856 0590  
Sales Fax: 01293 565169  
Tech Support Tel: 0844 856 0594  
Tech Support Fax: 01293 539209

#### Industrial

Sales Tel: 0844 856 0591  
Sales Fax: 01293 534898  
Tech Support Tel: 0844 856 0595  
Tech Support Fax: 01293 455197  
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