

eTurboProp™ High Pressure Axial Fans (ETP)

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 are speed controllable by either voltage control or frequency inverter (see electrical section for details)
- 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.

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 0.65m³/s to 5.93m³/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 speed controllable by either voltage control or frequency inverter (see electrical section for details).

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 PGII 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 10⁻⁵Pa (20 micro-Pascal). The sound power level spectra figures are dB with a reference level of 10-12 Watts (1 pico-watt). To ensure minimum noise levels during speed control, an auto transformer speed control is recommended.

Accessories

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

Warranty*

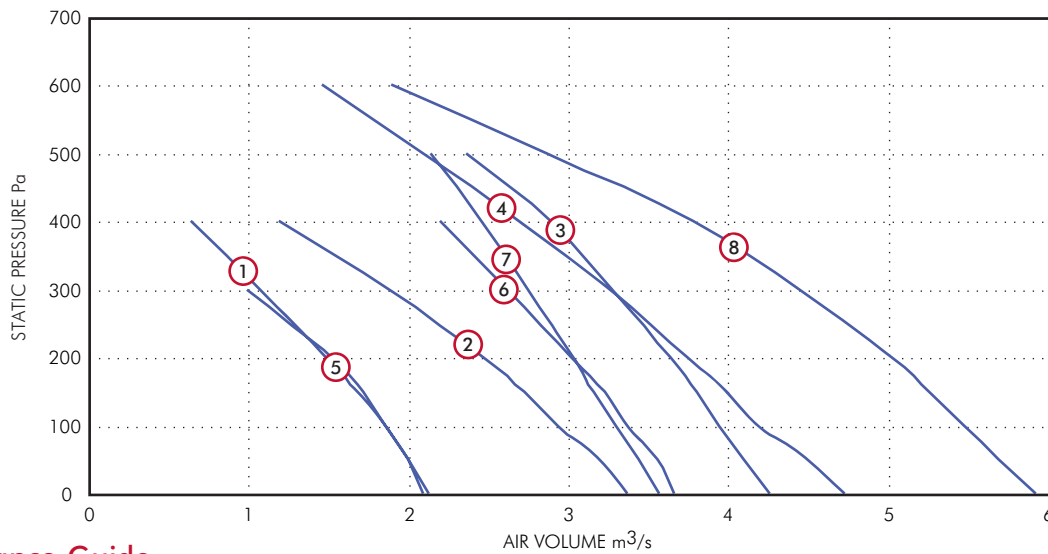
Standard 2 year warranty, extendable to 5 years by registration subject to installation and maintenance in accordance with fitting and operating instructions supplied with product.



***5 year warranty**

Performance Curve

450 to 630 dia. - 2 Pole - 1 & 3 Phase



Performance Guide

Unit Code	Nom. RPM	Phase	Pole	Performance										Motor kW	Amps S.C.	Amps F.L.C.	
				Curve	0	50	100	150	200	300	400	500	600				
ETP45012	2896	1	2	①	2.1	2	1.86	1.69	1.49	1.08	0.65				1.1	29	7.3
ETP50012	2610	1	2	②	3.38	3.2	2.94	2.73	2.47	1.89	1.2				1.5	38	9.1
ETP56012	2884	1	2	③	4.27	4.1	3.95	3.81	3.64	3.28	2.89	2.37			2.2	66	15.3
ETP63012	2884	1	2	④	4.74	4.5	4.2	4	3.75	3.27	2.7	2.1	1.47		3	80	18
ETP45032	2887	3	2	⑤	2.13	2	1.86	1.72	1.52	1					1.1	11	2.6
ETP50032	2859	3	2	⑥	3.67	3.56	3.38	3.23	3.02	2.63	2.2				1.5	17	3.5
ETP56032	2876	3	2	⑦	3.57	3.45	3.3	3.16	3.03	2.75	2.46	2.15			2.2	32	4.9
ETP63032	2886	3	2	⑧	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

Sound Power Level Spectra dB (re 10⁻¹²Watts)

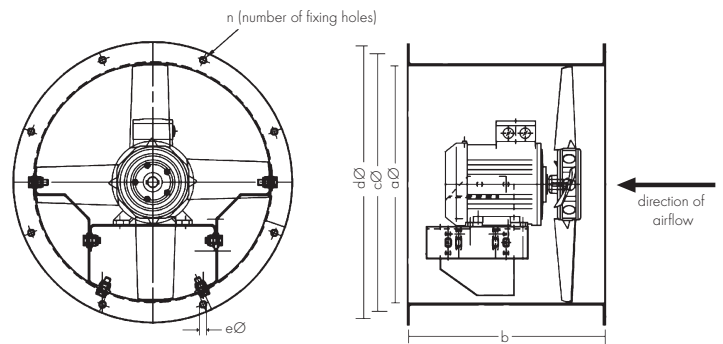
Unit Code	Phase	Pole	125	250	500	1k	2k	4k	8k	dB(A) @ 3m	
ETP45012	Inlet/Outlet	1	2	70	71	79	82	82	79	74	67
ETP50012	Inlet/Outlet	1	2	70	76	79	81	81	80	75	67
ETP56012	Inlet/Outlet	1	2	79	94	97	99	98	94	86	78
ETP63012	Inlet/Outlet	1	2	79	90	98	99	98	97	91	81
ETP45032	Inlet/Outlet	3	2	63	73	80	82	83	81	76	68
ETP50032	Inlet/Outlet	3	2	69	80	83	84	85	84	80	70
ETP56032	Inlet/Outlet	3	2	86	98	97	97	92	87	80	75
ETP63032	Inlet/Outlet	3	2	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 105 Pa. The free field sound power level spectra figure are dB with reference of 1012 Watts. To ensure minimum noise levels during speed control an auto transformer or inverter speed controller is recommended.

eTurboprop - High Pressure Axial Fans (ETP)

Fan Dimensions (mm)

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



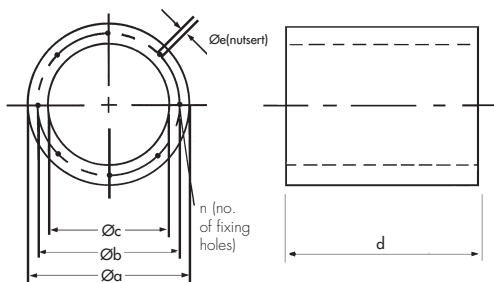
Attenuator Insertion Losses

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

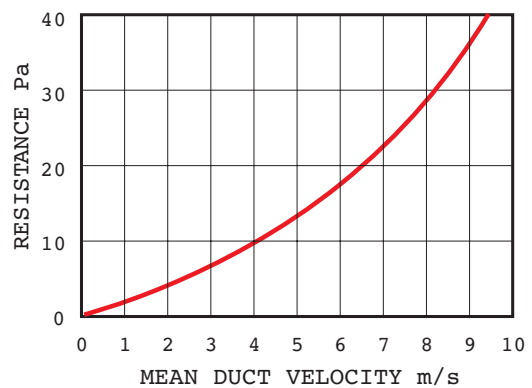
Attenuator Fitted with Pod Insertion Losses

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

Accessories Dimensions (mm)



Resistance Graph For Case Attenuator Fitted With Pod

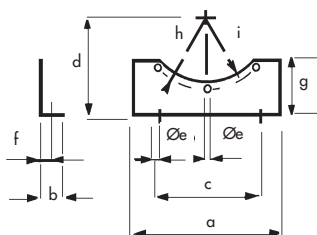


Case Axial Attenuator

Dia	øa	bø	øc	d	øe*	n	kg approx	Fitted with pod kg approx	Free area m ² without pod
450	550	500	450	675	M10	8	50	73	0.159
500	600	560	500	750	M10	12	59	87	0.196
560	660	620	560	840	M10	12	70	102	0.246
630	730	690	630	940	M10	12	82	120	0.312

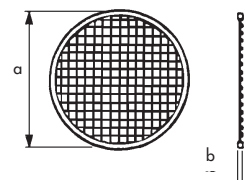
*Threaded hole to take bolt

Mounting Feet



Stock Ref.	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

Inlet Wire Guard



'K' factor loss 0.25

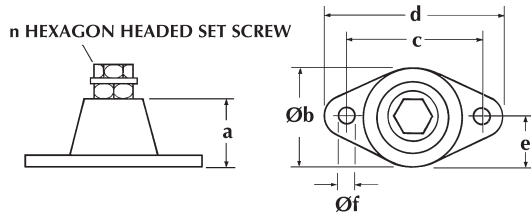
Stock

Ref. No.	øa	b
10505450	525	3
10505500	595	3
10505560	655	3
10505 630	725	3

For more information on the 'K' factor, refer to General Information Section

Accessories Dimensions (mm)

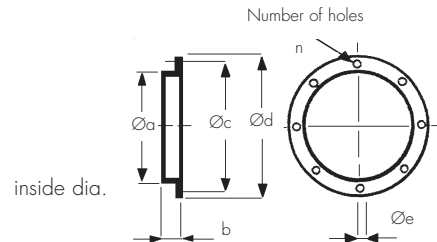
Anti-Vibration Mounts



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

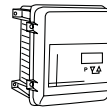
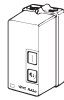
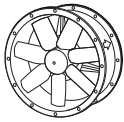
* 4 required per fan

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

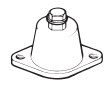
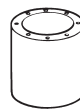
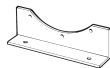
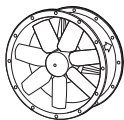
Accessories



Stock Ref. No.	Auto Transformer Stock Ref. No.	D.O.L. Starter Overload Stock Ref. No.	eDemand Controller			*Ancillary Pack Stock Ref. No.
			Voltage Control Stock Ref.	1 Phase Inverter Stock Ref.	3 Phase Inverter Stock Ref.	
ETP45012	10314110	444744 + 444705	444165	444171	-	10513450
ETP45032	10314304	444747 + 444702	444166	-	444173	10513450
ETP50012	10314113	444744 + 444706	-	-	-	10513500
ETP50032	10314304	444747 + 444702	444166	-	444173	10513500
ETP56012	-	444744 + 444707	-	-	-	10513560
ETP56032	10314307	444747 + 444703	444167	-	444174	10513560
ETP63012	-	444744 + 444708	-	-	-	10513630
ETP63032	10314311	444747 + 444705	444167	-	444175	10513630

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

^ For full range of speed controller options, see Accessories & Controllers Section



Stock Ref. No.	Mounting Feet (pair) Stock Ref. No.	Coupling Flange Stock Ref. No.	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.
ETP45012	10503450	10506450	10505450	10514450	10500450	10523033
ETP45032	10503450	10506450	10505450	10514450	10500450	10523033
ETP50012	10503500	10506500	10505500	10514500	10500500	10523033
ETP50032	10503500	10506500	10505500	10514500	10500500	10523033
ETP56012	10503560	10506560	10505560	10514560	10500560	10523033
ETP56032	10503560	10506560	10505560	10514560	10500560	10523033
ETP63012	10503630	10506630	10505630	10514630	10500630	10523033
ETP63032	10503630	10506630	10505630	10514630	10500630	10523033

* 4 required per fan

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