

# Acoustic Twin Fans (ATQ)

## Features and Benefits

- Available in sizes from 100 to 500mm dia
- 50mm Acoustically treated housing, Class 'O' rated, self extinguishing, zero burn rate, resists ignition, no toxic fumes
- Motors protected to IP44
- Motor insulation Class B
- Maximum operating temperature 50°C
- Standard Thermal Overload Protection
- Quick release access panel
- Fully watherproof units available
- Manufacture controlled to BS EN ISO 9001
- Performance tested to BS 848 Part 1 & 2
- 2 Year Guarantee

VentAxia ATQ fans feature a 50mm acoustic lined sound controlled housing **rated Class 'O'**. The housing is designed to be as compact as possible for concealed false ceiling applications. Manufactured in galvanised sheet metal, with integral anchorage points to allow the fan to be suspended horizontally via drop rods or anti vibration mounts, ensuring a quick and easy solution to installation. The access panel is easily removed for inspection using the four quick release catches provided. **Individual gravity operated shutters** prevent air from passing through the unit during shut down periods.

Acoustic Twin fans are also available, finished with optional C.R.P (Chlorinated Rubber Paint), ensuring the unit is fully weatherproofed and suitable for external mounting. All weatherproofed units are manufactured to order. **Note the standard product codes are suffixed with 'WP' eg ATQ100-12CWP.**

Ten models are available in sizes 100, 125, 150, 160, 200, 250, 315, 400 and 500, providing air volumes from 0.057m<sup>3</sup>/s to 1.40m<sup>3</sup>/s (205m<sup>3</sup>/h to 5040m<sup>3</sup>/h) at free air. Designed for pressures up to 550 Pa.

## Motors

At the heart of the range is a proven 230V/1/50Hz external rotor motor and forward curved galvanised impeller assembly. The assembly is dynamically balanced to **ISO 1940**. Motors are rated to **IP44** according to **BS EN 60529**. Ball bearings are greased for life and allow the fan to run at any angle. Insulation is **Class 'B' (from -15°C to +50°C)**. The size 500 utilizes an internal rotor motor with Class B insulation (from -15°C to +40°C).

All Acoustic fans are suitable for speed control, an Auto Transformer is recommended to ensure minimum noise levels during speed control so eliminating any possibility of motor harmonic noise.

For eDemand controls ref to Accessories & Controllers Section.

## Terminal Box

An **IP54** Terminal Box is supplied with all models with 20mm cable gland entry.

## Performance and Sound

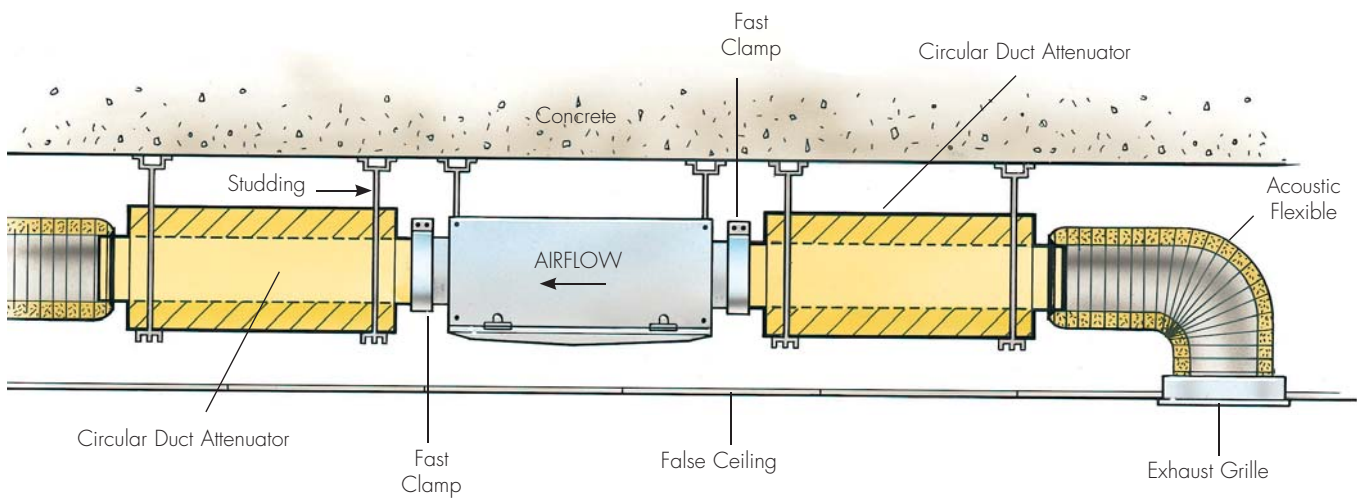
Tested to **BS 848 Parts 1 & 2**. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of  $2 \times 10^{-5}$ Pa (20 micro-Pascal). The inlet, outlet and breakout sound power level spectra figures are dB with a reference of  $10^{-12}$  Watts (1 pico-watt).

## Quality Assurance

Design and manufacture is in accordance with **BS EN ISO 9001**.

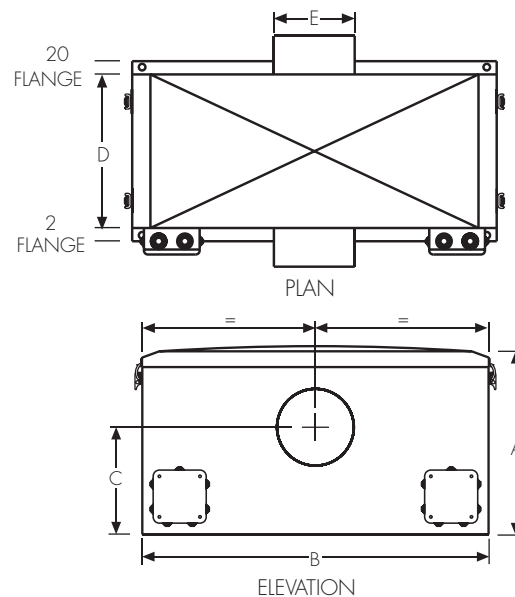


## Typical Installation



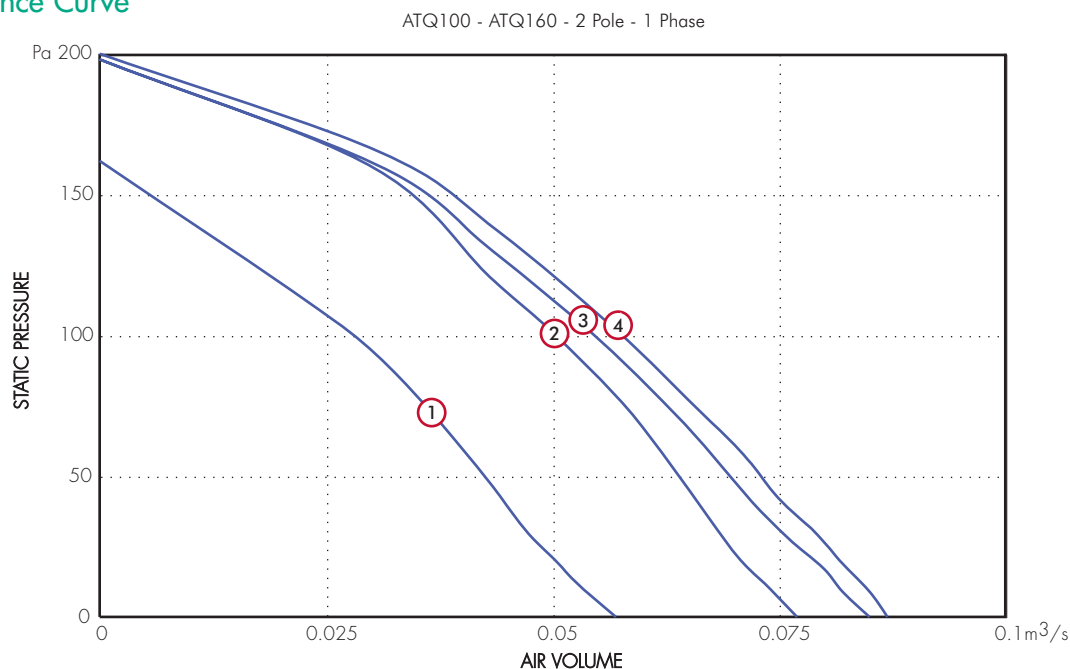
## Fan Dimensions (mm)

Stock Ref. No.	A	B	C	D	E	Kg (approx.)
ATQ10012C	312	635	171	510	97	25
ATQ12512C	312	635	171	510	122	25
ATQ15012C	312	635	171	510	147	25
ATQ16012C	312	635	171	510	157	25
ATQ20012C	362	770	203	610	197	35
ATQ25012C	362	770	233	610	247	40
ATQ31512LC	477	880	258	760	312	50
ATQ31514HC	517	1100	295	810	312	70
ATQ40014C	517	1100	253	810	397	75
ATQ50014C	672	1300	357	1060	497	120



# Acoustic Twin Fans (ATQ)

## Performance Curve



## Performance Guide

Unit Code	Phase	Nom. RPM	Curve Ref.	m³/s at Pa				Motor kW	Amps F.L.C.	Amps S.C.	dBA @ 3m
				0	50	100	150				
ATQ10012C	1	1650	①	0.057	0.042	0.028		0.08	0.34	0.36	22
ATQ12512C	1	1650	②	0.077	0.064	0.05	0.035	0.08	0.34	0.36	24
ATQ15012C	1	1650	③	0.085	0.07	0.055	0.036	0.08	0.34	0.36	23
ATQ16012C	1	1650	④	0.087	0.073	0.058	0.039	0.08	0.34	0.36	23

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

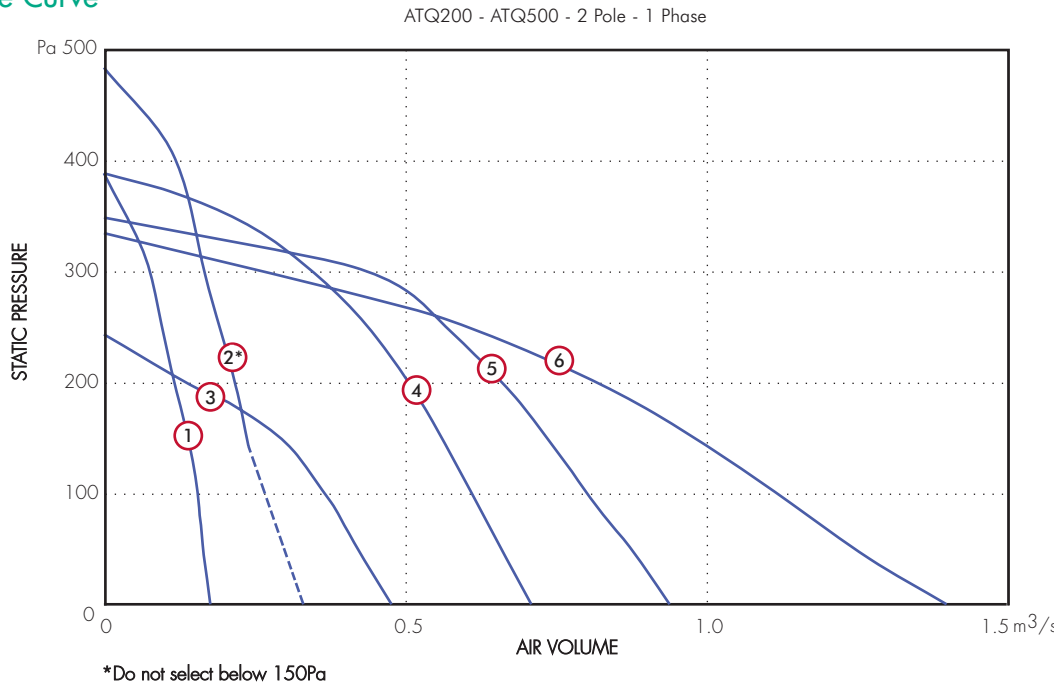
## Sound Power Level Spectra dB (re 10<sup>-12</sup> Watts)

Unit Code	Phase	Mid Octave Bands								dBA @ 3m
		63	125	250	500	1k	2k	4k	8k	
ATQ10012C	Inlet	52	50	41	37	34	34	32	32	22
ATQ10012C	Outlet	48	54	48	41	42	42	38	36	28
ATQ10012C	Breakout	49	49	43	38	36	34	30	31	22
ATQ12512C	Inlet	49	51	42	39	33	35	34	33	23
ATQ12512C	Outlet	50	57	49	44	39	42	40	39	29
ATQ12512C	Breakout	52	53	44	39	37	37	36	34	24
ATQ15012C	Inlet	46	53	41	39	37	38	36	34	24
ATQ15012C	Outlet	49	56	49	42	43	45	43	41	30
ATQ15012C	Breakout	55	50	43	38	38	35	30	31	23
ATQ16012C	Inlet	46	53	41	39	37	38	36	34	24
ATQ16012C	Outlet	49	56	49	42	43	45	43	41	30
ATQ16012C	Breakout	55	50	43	39	38	35	30	31	23

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 figures are dB with reference of  $10^{-12}$  Watts.

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

## Performance Curve



## Performance Guide

Unit Code	Phase	Nom. RPM	Curve Ref.	m <sup>3</sup> /s at Pa												Motor kW	Amps F.L.C.	Amps S.C.	dBA @ 3m
				0	50	100	150	200	250	300	350	400	450						
ATQ20012C	1	1700	①	0.177	0.163	0.153	0.141	0.116	0.094	0.077	0.036				0.175	0.77	0.92	29	
ATQ25012C	1	2050	②				0.234	0.217	0.191	0.163	0.147	0.118	0.053	0.3	1.31	1.5	36		
ATQ31512LC	1	1900	③	0.478	0.419	0.364	0.293	0.126						0.36	1.58	3.3	35		
ATQ31514HC	1	1280	④	0.71	0.66	0.614	0.558	0.505	0.436	0.346	0.207			0.525	2.29	4.4	37		
ATQ40014C	1	1230	⑤	0.94	0.876	0.802	0.733	0.662	0.566	0.442				1.06	5.38	8.5	48		
ATQ50014C	1	900	⑥	1.4	1.247	1.12	0.978	0.821	0.603	0.26				1.6	8	13	45		

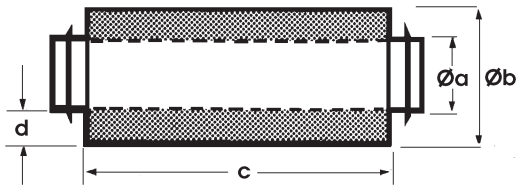
S.C. = STARTING CURRENT  
F.L.C. = FULL LOAD CURRENT

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

Unit Code	Unit	Mid Octave Bands								dBA @ 3m
		63	125	250	500	1k	2k	4k	8k	
ATQ20012C	Inlet	57	67	54	50	40	46	44	41	34
ATQ20012C	Outlet	60	69	61	55	52	51	50	48	40
ATQ20012C	Breakout	54	57	49	46	44	42	38	34	29
ATQ25012C	Inlet	63	71	61	52	46	49	49	46	39
ATQ25012C	Outlet	70	74	65	60	60	61	59	58	47
ATQ25012C	Breakout	60	62	56	51	51	51	45	39	36
ATQ315L12C	Inlet	64	70	60	52	51	54	53	49	40
ATQ315L12C	Outlet	69	72	63	61	65	62	61	59	49
ATQ315L12C	Breakout	68	61	55	49	51	46	42	36	35
ATQ315H14C	Inlet	63	68	62	55	57	57	57	54	43
ATQ315H14C	Outlet	69	74	69	65	66	64	62	61	51
ATQ315H14C	Breakout	63	68	56	50	52	49	48	42	37
ATQ40014C	Inlet	69	79	67	59	60	62	61	59	49
ATQ40014C	Outlet	76	81	73	70	71	71	70	67	57
ATQ40014C	Breakout	75	74	70	63	62	61	57	51	48
ATQ50014C	Inlet	70	77	71	65	64	62	58	53	49
ATQ50014C	Outlet	75	81	71	70	69	67	66	61	55
ATQ50014C	Breakout	69	74	64	61	60	57	52	41	45

# Acoustic Twin Fans (ATQ)

## Duct Attenuators Dimensions (mm)

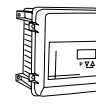
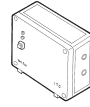
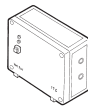
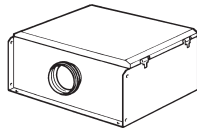


Length	Stock			kg approx
	Ref. No.	Øa	Øb	
300	10534100	100	200	2.6
300	10534125	125	225	3.6
300	10534150	150	250	4
300	10534160	160	250	4
600	10535100	100	200	4
600	10535125	125	225	4.5
600	10535150	150	250	6
600	10535160	160	250	6
600	10535200	200	315	7.4
600	10535250	250	355	10.2
600	10535315	315	450	13
600	10535400	400	606	18.5
900	10536100	100	200	7
900	10536125	125	225	8
900	10536150	150	250	9
900	10536160	160	250	9
900	10536200	200	315	11
900	10536250	250	355	14.7
900	10536315	315	450	18
900	10336400	400	606	38
900	10536500	500	711	43
1200	10537200	200	315	14
1200	10537250	250	355	18.5
1200	10537315	315	450	21.5
1200	10537400	400	606	50
1200	10537500	500	711	60

## Duct Attenuator Insertion Losses

Stock Ref.	Duct Length	Duct Ø	Insertion Losses (dB)							
			63	125	250	500	1k	2k	4k	8k
10534100	300	100	3	4	10	18	23	25	25	12
10534125	300	125	3	4	8	17	21	23	21	11
10534150	300	150	3	3	6	14	20	23	21	11
10534160	300	160	3	3	6	14	20	23	21	11
10535100	600	100	5	8	16	33	39	40	36	17
10535125	600	125	4	8	13	30	34	35	31	15
10535150	600	150	4	7	13	23	29	36	31	15
10535160	600	160	4	7	13	23	29	36	31	20
10535200	600	200	4	5	11	21	26	32	20	9
10535250	600	250	3	6	10	19	24	29	19	8
10535315	600	315	3	5	8	16	21	22	16	15
10535400	600	400	3	4	7	14	18	19	14	13
10536100	900	100	10	13	20	39	45	38	35	18
10536125	900	125	9	12	18	37	41	37	32	16
10536150	900	150	8	9	15	30	37	37	33	17
10536160	900	160	8	9	15	30	37	37	33	17
10536200	900	200	7	9	14	27	31	36	25	12
10536250	900	250	5	8	13	24	30	31	22	11
10536315	900	315	4	7	11	20	31	27	17	12
10536400	900	400	3	5	9	19	26	20	13	11
10536500	900	500	3	4	9	15	23	17	12	11
10537200	1200	200	10	12	17	35	40	43	27	13
10537250	1200	250	7	9	15	31	36	38	26	12
10537315	1200	315	6	8	13	23	32	30	18	11
10537400	1200	400	6	8	14	24	30	28	17	9
10537500	1200	500	5	7	13	18	26	23	15	9

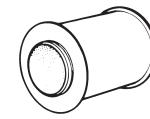
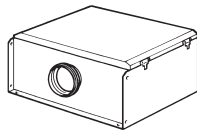
## Accessories



Duct Ø	Standard	Weatherproofed	**ITC Man/Auto	**ITC-DS 12/24hr	*eDemand Controller			Anti-
	Unit	Unit	Changeover	Auto Changeover	Voltage	1/3 Phase	3 Phase	Vibration
	Stock Ref. No.	Stock Ref. No.	Controller	Controller	Control	Inverter	Inverter	Mounts
			Stock Ref. No.	Stock Ref. No.	Stock Ref.	Stock Ref.	Stock Ref.	Stock Ref.
100	ATQ10012C	ATQ100-12CWP	10314200	10314210	444164	-	-	10523033
125	ATQ12512C	ATQ125-12CWP	10314200	10314210	444164	-	-	10523033
150	ATQ15012C	ATQ150-12CWP	10314200	10314210	444164	-	-	10523033
160	ATQ16012C	ATQ160-12CWP	10314200	10314210	444164	-	-	10523033
200	ATQ20012C	ATQ200-12CWP	10314200	10314210	444164	-	-	10523033
250	ATQ25012C	ATQ250-12CWP	10314200	10314210	444164	-	-	10523033
315	ATQ31512LC	ATQ315-12LCWP	10314200	10314210	444164	-	-	10523033
315	ATQ31514HC	ATQ315-14HCWP	10314200	10314210	444164	-	-	10523033
400	ATQ40014C	ATQ400-14CWP	10314200	10314210	444164	-	-	10523033
500	ATQ50014C	ATQ500-14CWP	10314200	10314210	444165	-	-	10523033

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

\*\*Not suitable for use with eDemand controllers. For compatible changeover panel, see Accessories and Controllers Section



Duct Ø	Standard	Weatherproofed	RVC Remote	RSC Remote	Auto	Duct Attenuator			
	Unit	Unit	Visual	Visual	transformer	300mm	600mm	900mm	1200mm
	Stock Ref.	Stock Ref.	Indicator	Indicator	Stock Ref.	Attenuator	Attenuator	Attenuator	Attenuator
			Stock Ref.	Stock Ref.		Stock Ref.	Stock Ref.	Stock Ref.	Stock Ref.
100	ATQ10012C	ATQ100-12CWP	10314220	10314230A	10314103	10534100	10535100	10536100	-
125	ATQ12512C	ATQ125-12CWP	10314220	10314230A	10314103	10534125	10535125	10536125	-
150	ATQ15012C	ATQ150-12CWP	10314220	10314230A	10314103	10534150	10535150	10536150	-
160	ATQ16012C	ATQ160-12CWP	10314220	10314230A	10314103	-	10535160	-	-
200	ATQ20012C	ATQ200-12CWP	10314220	10314230A	10314103	-	10535160	10536200	10537200
250	ATQ25012C	ATQ250-12CWP	10314220	10314230A	10314103	-	10535250	10536250	10537250
315	ATQ31512LC	ATQ315-12LCWP	10314220	10314230A	10314103	-	10535315	10536315	10537315
315	ATQ31514HC	ATQ315-14HCWP	10314220	10314230A	10314103	-	10535315	10536315	10537315
400	ATQ40014C	ATQ400-14CWP	10314220	10314230A	10314107	-	10535400	10536400	10537400
500	ATQ50014C	ATQ500-14CWP	10314220	10314230A	10314113	-	10535400	10536500	-