

# ACM

## In-Line Mixed Flow Fans



### Features and Benefits

- > Available in 6 Sizes.
- > 100 and 150mm timer versions available.
- > Single direction, two speed selectable motor.
- > Easily accessible terminal box with 20mm entry.
- > Supplied completely assembled, ready for on-site installation.
- > For the best performance from your fan use a Vent-Axia electronic controller.
- > Designed to meet IP44.

## Ducted Ventilation

A range of six In-Line Mixed Flow fans designed for use with rigid and flexible ducting with energy efficiency and low sound levels in mind. Vent-Axia In-Line Mixed flow fans offer almost two and a half times the pressure development of conventional axial fans making them ideal for many ducted applications. They are dimensionally compact and feature low noise and non-overloading characteristics.

The range consists of six sizes: 100, 125, 150, 200, 250 and 315mm with air volumes from 220 to 1860m<sup>3</sup>/h at free air, suitable against working pressures up to 400 Pa. ACM100T and ACM150T have built-in adjustable timers. All other models, with the exception of the ACM315 can be used with a Timespan remote overrun timer, adjustable 3-25 minutes to comply with Building Regulations for internal rooms.

Their compact size makes them ideal for refurbishment work and in restricted ceiling voids. A full range of compatible ventilation accessories is available to create a variety of input and extract systems to suit individual schemes.

Compact mixed flow blade design with guide vanes provides optimum pressure characteristics. All sizes feature a removable motor body and impeller assembly for easy cleaning without removing ductwork.

### Motor

All motors are fitted with Standard Thermal Overload Protection. (S.T.O.P.). Motors are speed controllable on their high speed setting. Designed for ambient temperatures up to +50°C.

Size 100 and 125 with shaded pole motors. Size 150, 200, 250 and 315 with capacitor start and run motors. All sizes are Class I appliances. Supply voltage 220-240V/1/50Hz.

### FAQ's Answered

All models have two speed capability.

100mm and 150mm models available with integral timer (single speed only).

Suitable for installation at any angle.

Motor body is simple to remove for cleaning.

Speed controllable.

### Controller

**Electronic Controller - Surface mounting**  
Mixed flow fans are speed controllable (on high speed tapping only) using a Vent-Axia 1.5Amp electronic controller. It will provide infinitely variable speed control and features an On/Off/sensor slider with neon indicator. There is an adjustable minimum speed setting. The controller is radio suppressed to BS EN 55014 and electrical connections for use with suitable external sensors are provided. 86 x 156 x 53mm (H x W x D).

Stock Ref. No. W30 03 10

For flush fitting, a metal wall box accessory is available for use with the surface mounting model for conduit connection.

Hole for wall box:  
80 x 150 x 50mm (H x W x D).

Stock Ref. No. 40 01 44

### Sensors

**Ambient Response Humidity Sensor** - Self programming electronic On/Off wall mounted humidity sensor which reacts to any rapid increase in humidity and temperature. Night time RH increment setback feature.

Stock Ref. No. 56 35 50

**Timespan - Surface mounting** - Adjustable timer with overrun facility for fans ventilating internal rooms.

Stock Ref. No. 56 35 19

A surface mounting back box is available.

Stock Ref. No. 41 00 20

### Typical Specification

Supply and install an ACM In-line mixed flow fan as manufactured by Vent-Axia Ltd, Fleming Way, Crawley, West Sussex, RH10 9YX, Telephone: 01293 526062.

The fan should be a mixed flow fan specifically for use with rigid and flexible ducting with energy efficiency and low sound levels in mind. The fan shall be fitted within the ducted system and isolated from the building structure by means of anti-vibration mountings. The fan should be dimensionally compact saving weight and installation costs.

The fan should be fully speed controllable by using a variable speed controller, also the fan could be controlled by humidity, air quality or PIR sensors. The fan motor should be removable by means of 2 Clip Bands for ease of maintenance. Motors should have ball bearings greased for life to allow the fan to be installed at any angle and should have Class B insulation to allow the fan to work satisfactorily in ambient air temperatures from -30°C to +50°C and should be fitted with Standard Thermal Overload Protection (S.T.O.P.).

### Accessories

**Flexible ducting** - 5 layer aluminium foil/polyester on a steel wire helix. Fire resistance: assessed against integrity criterion of BS 476 : Part 8 : 1972, providing in excess of 30 minutes integrity from inside to outside. Classified as Class I to BS 476 : Part 7 : 1971. Standard length - 10 metres.

**Louvre shutters** - Gravity return flaps to protect against backdraughts. Frame manufactured from high impact polystyrene and the louvres from PVC. All components are UV stabilized.

**Wall termination set** - Used to terminate flexible ducting at walls. Flexible wall sleeve and fixing rods can be cut to suit varying wall thicknesses up to 360mm. Consists of: Direct mount spigot, grille, flexible wall sleeve and all fixings.

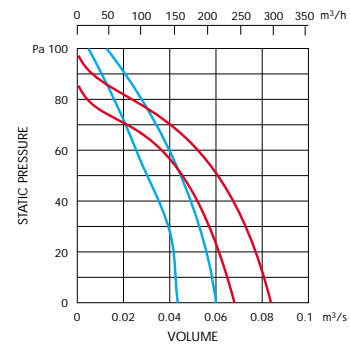
**Pre-filter cassette** - EU3 (Eurovent 4/5) 85% arrestance. Housing is in galvanised sheet metal. Replacement pre-filters are available.

For a full range of suitable accessories, please see pages 218-219.

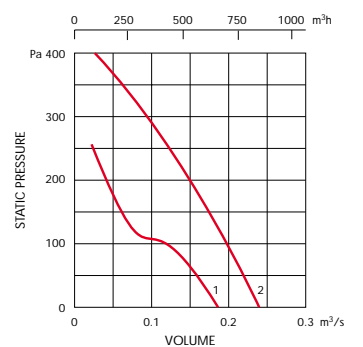
Type	Stock Ref. No.	Nominal r.p.m	0	25	50	100	150	200	250	300	400	Watts	S.C. Amps	F.L.C. Amps	dB(A) at 3m
ACM100	171 04 010B	L 2170	0.043	0.040	0.031							44	0.70	0.35	40
ACM100T	171 04 020D	H 2430	0.060	0.055	0.043							70	1.20	0.60	44
ACM125	171 05 010B	L 2190	0.070	0.060	0.043							44	0.70	0.35	43
		H 2530	0.081	0.072	0.058							70	1.20	0.60	47
ACM150	171 06 010A	L 1810	0.094	0.088	0.082	0.062						44	0.46	0.23	41
ACM150T	171 06 020B	H 2380	0.127	0.123	0.117	0.105	0.085					66	0.70	0.35	47
ACM200	171 08 010A	L 2160	0.181	0.175	0.170	0.156	0.140	0.113				125	1.40	0.70	48
		H 2390	0.225	0.218	0.211	0.197	0.185	0.167	0.138			152	1.60	0.80	55
ACM250	171 10 010A	L 2150	0.193	0.177	0.159	0.119	0.067	0.045				81	0.90	0.45	50
		H 2670	0.277	0.228	0.216	0.197	0.171	0.142	0.108	0.079		140	1.80	0.65	57
ACM315	171 12 010A	L 1960	0.398	0.365	0.329	0.263	0.178	0.140	0.101	0.065		1.80	2.25	0.75	58
		H 2555	0.517	0.499	0.482	0.444	0.408	0.373	0.329	0.277	0.178	300	3.75	1.25	62

### Performance

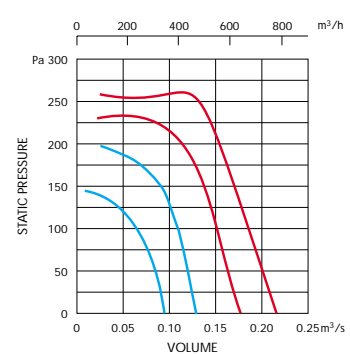
100/125mm



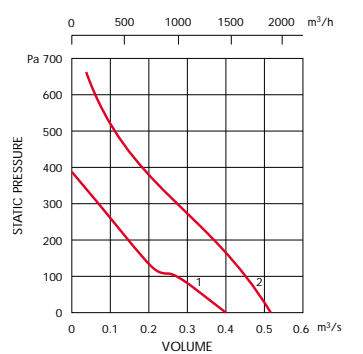
250mm



150/200mm



315mm



### Dimensions (mm)

Size	100	125	150	200	250	315
dim. mm	mm	mm	mm	mm	mm	mm
AØ	96	122	147	197	248	310
BØ	165	165	200	207	253	335
C	114	114	127	135	186	220
D	302	255	295	300	385	455
E	102	102	130	130	156	190
F	90	90	130	140	170	210
G	80	80	80	100	145	182
H	60	60	60	94	138	178
Weight	2.4kg	2.4kg	2.7kg	4.9kg	9.4kg	12.8kg

