

# VENT-AXIA MINI MIXED FLOW ROOF FAN (ACR)



- ✓ Available in 4 Sizes.
- ✓ Optional airflow direction, two speed motor as standard.
- ✓ Motors protected to IP44.
- ✓ Fully speed controllable.
- ✓ Easy accessible IP55 rated terminal box with 20mm entry.
- ✓ Compact external rotor motor with Thermal Overload Protection.
- ✓ Suitable for external use.
- ✓ The casing is protected by a tough UV stabilized two coat primer and an epoxy polyester black finish.
- ✓ Supplied complete with roof plate.
- ✓ **2 Year Guarantee.**

The all new Mini Mixed Flow Roof Fan has been especially designed for high pressure, low volume supply or extract ventilation systems, with either rigid or flexible ducting. The ACR range of fans allows the installer greater flexibility of system design, when considering access to the fan for maintenance or restricted void space. Suitable for flat horizontal roofs as standard, the ACR unit can be installed on shallow pitched roofs (20° max.) but will require additional weathering of the mounting plate when fixed to the upstand by the installer.

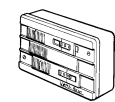
The ACR range of fans may be used for supply or extract ventilation systems by re-mounting the fan section in either its supply or extract mode before installation, with the added benefit of a two-speed motor as standard. The range consists of four sizes; 150, 200, 250 and 315mmØ with air volumes from 0.1 to 0.48m³/s (360 to 1,728m³/h) at free air and pressure development up to 300Pa.

Mini Mixed Flow Roof Fans are suitable for domestic and commercial applications particularly where space is at a premium or an external application is required. A full range of compatible internal accessories is available to create a variety of input or extract systems to suit individually designed schemes.

## MOTOR

All motors are fitted with Standard Thermal Overload Protection (S.T.O.P.) and are manually re-settable. All motors are suitable for speed control on their high speed setting. Ambient working temperature is -20°C up to +50°C and up to 95% R.H.

## CONTROLLERS



**Electronic Controller - Surface mounting.** Mini Mixed Flow Roof Fans are suitable for speed control (on the high speed tapping only) using a Vent-Axia 2.5 amp electronic speed controller. Provides infinitely variable speed control and features an On/Off sensor slider with a neon indicator. There is an adjustable minimum speed setting. The controller is radio suppressed to BS 800 and electrical connections for use with suitable remote sensors are provided. (86 H x 156 W x 53 D).  
**Stock Reference. No. W103 03 102M**

## REMOTE SENSORS



**Timespan Controller** Adjustable timer with overrun facility for fans ventilating W.C.'s and other small rooms. 5-25 minute adjustment (to comply with Building regulations).  
**Stock Ref. No. 56 35 19**



**Ambient Response Humidistat** Self programming electronic On/Off wall mounted humidity sensor. Reacts to any rapid increase in humidity and temperature by switching a Vent-Axia fan 'On' for rapid removal of moisture laden air. Can be wired into controller 'Auto' mode connections. Night time RH

increment setback feature suppresses nuisance tripping when the humidity level gradually rises as the temperature falls. Pullcord override and neon indicator. Changeover relay switch. 30%-90%RH operating range. Ambient operating temperature +5°C to +40°C.  
**Stock Ref. No. 56 35 50**



**Ecotronic Humidistat** An adjustable set point, solid state On/Off sensor. A pullcord provides manual override, indicated by lamp. Adjustable from 65 to 90%RH. Can be wired into controller Auto mode connections.  
**Stock Ref. No. 56 35 32**



**Visionex PIR** A wall or ceiling mounted movement detector for use with any domestic Vent-Axia mains voltage product. Adjustable timer overrun (5-25 minutes).  
**Stock Ref. No. 45 07 26**



**Guardian PIR** Continuously monitors an area and activates when a moving body is detected. Adjustable over-run timers (1-20 minutes).

# MINI MIXED FLOW ROOF FANS PERFORMANCE GUIDE

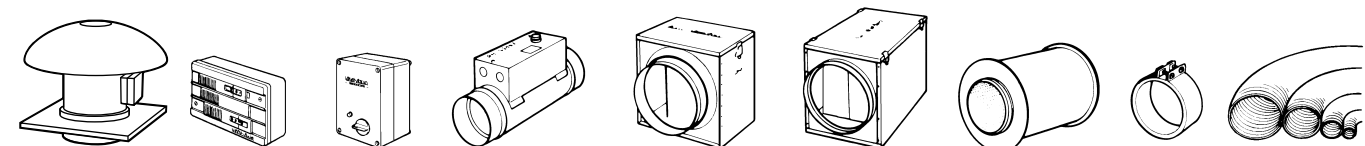
## 2 POLE

Dia.	Motor	Stock Ref. No	m³/s at Pa									Motor kW	F.L.C. Amps	dBA @ 3m	
			(Nominal) r.p.m.	0	25	50	100	150	200	250	300				
150	1 phase	ACR150	L 1800	0.10	0.09	0.08	0.07	0.03					0.040	0.19	
			H 2450	0.13	0.13	0.12	0.11	0.09					0.068	0.26	50
200	1 phase	ACR200	L 2100	0.18	0.17	0.15	0.14	0.13	0.11	0.08			0.118	0.52	
			H 2500	0.22	0.21	0.20	0.19	0.18	0.17	0.14			0.140	0.58	53
250	1 phase	ACR250	L 1800	0.22	0.20	0.19	0.15	0.11	0.09	0.07			0.120	0.52	
			H 2400	0.31	0.30	0.28	0.27	0.23	0.20	0.13			0.170	0.83	60
315	1 phase	ACR315	L 1750	0.33	0.31	0.30	0.25	0.17	0.12	0.10	0.07	0.190	0.79		
			H 2480	0.48	0.46	0.44	0.41	0.39	0.36	0.31	0.28	0.300	1.27	67	

L - LOW SPEED H - HIGH SPEED

F.L.C. = FULL LOAD CURRENT

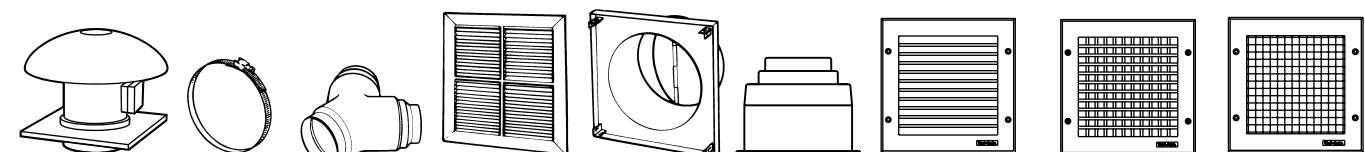
## ACCESSORIES



Type	Electronic controller Stock Ref. No.	Auto transformer Stock Ref. No.	† Duct air heater Stock Ref. No.	Filter cassette Stock Ref. No.	Bag filter cassette Stock Ref. No.	* Duct attenuator 600mm Stock Ref. No.	Fast Clamp Stock Ref. No.	Flexible ducting Stock Ref. No.
ACR150	W103 03 102M	103 14 103	105 31 150	105 32 150A	105 33 150	105 35 150	105 40 150	105 39 150
ACR200	W103 03 102M	103 14 103	105 31 200	105 32 200A	105 33 200	105 35 200	105 40 200	105 39 200
ACR250	W103 03 102M	103 14 103	105 31 250	105 32 250A	105 33 250	105 35 250	105 40 250	105 39 250
ACR315	W103 03 102M	103 14 103	105 31 315	105 32 315A	105 33 315	105 35 315	105 40 315	105 39 315

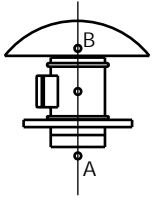
† Electric Heater Controller available, see pages 386-387.

\* Also available in 300, 900 and 1200 mm lengths



Type	Worm drive clips Stock Ref. No.	3-way splitters Stock Ref. No.	4-way diffusers Stock Ref. No.	Neck adaptors Stock Ref. No.	Plenum Box Stock Ref. No.	Single Deflection Grille Stock Ref. No.	Double Deflection Grille Stock Ref. No.	Egg Crate Grille Stock Ref. No.
ACR150	56 17 07	45 20 83	105 46 230	105 47 150	56 06 02	56 13 71	56 13 81	56 13 05
ACM200	56 17 10	105 51 250	105 46 230	105 47 200	56 06 03	56 13 72	56 13 82	56 13 01
ACR250	56 17 10	105 51 250	105 46 300	105 47 250	56 06 04	56 13 72	56 13 82	56 13 01
ACR315	56 17 15	105 53 400	105 46 350	105 47 300	56 06 05	56 13 73	56 13 83	56 13 02

# VENT AXIA MINI MIXED FLOW ROOF FANS SOUND LEVEL DATA

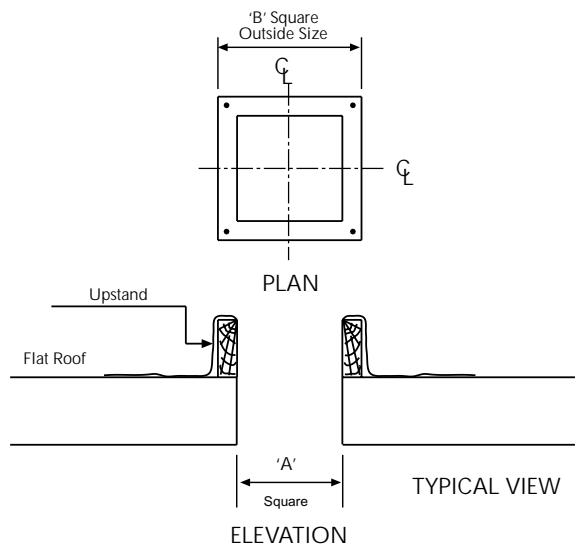
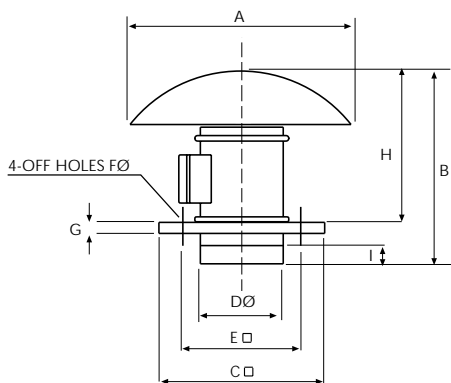


Sound Power Level Spectra dB (re 10<sup>-12</sup>Watts)

HIGH SPEED

Type		Reference Point	125	250	500	1k	2k	4k	8k
ACR150	EXTRACT	A	42.0	46.5	58.5	55.5	60.5	53.5	47.5
	EXTRACT	B	42.0	55.5	63.0	67.0	64.0	54.0	46.5
	SUPPLY	A	37.5	42.0	54.0	51.0	56.0	49.0	43.0
	SUPPLY	B	37.5	51.0	58.5	62.5	59.5	49.5	42.0
ACR200	EXTRACT	A	45.5	56.5	61.0	62.5	67.0	62.0	53.0
	EXTRACT	B	45.5	59.0	66.5	70.5	67.5	57.5	50.0
	SUPPLY	A	44.5	55.5	60.0	61.5	66.0	61.0	52.0
	SUPPLY	B	44.5	58.0	65.5	69.5	66.5	56.5	49.0
ACR250	EXTRACT	A	46.0	59.5	60.5	71.5	68.5	63.5	59.5
	EXTRACT	B	55.5	67.0	74.5	75.5	74.0	68.5	61.0
	SUPPLY	A	45.0	58.5	59.5	70.5	67.5	62.5	58.5
	SUPPLY	B	54.5	66.0	73.5	74.5	73.0	67.5	60.0
ACR315	EXTRACT	A	45.5	60.0	64.0	74.0	72.5	65.0	58.5
	EXTRACT	B	63.0	74.5	82.0	83.0	81.5	76.0	68.5
	SUPPLY	A	42.0	56.5	60.5	70.5	69.0	61.5	55.0
	SUPPLY	B	59.5	71.0	78.5	79.5	78.0	72.5	65.0

## DIMENSIONS



Type	Fixing hole Centres								Weight Kg	
	A	B	C	D	E	F	G	H		
ACR 150	400	349	300	150	245	10	20	274	33	4.0
ACR 200	400	371	300	198	245	10	20	306	36	6.0
ACR 250	546	457	435	250	330	12	20	372	42	12.0
ACR 315	735	544	560	312	450	12	20	450	50	18.0

Type	A	B
ACR 150	220	295
ACR 200	220	295
ACR 250	280	380
ACR 315	400	500