

# Powerflow In-Line Duct Fans (ACP)

## Features & Benefits

- Tough plastic in-line range in eight models
- 50-80mm long ribbed spigots
- Flame retardant casing
- All models speed controllable
- Fitted with Standard Thermal Overload Protection (S.T.O.P.)
- Manufacture controlled to BS EN ISO 9001
- Performance tested to BS 848 Part1 & 2
- 2 Year Guarantee

## Ducted Ventilation

Powerflow models provide a compact yet versatile range designed with the installer in mind, combining the acoustic benefits of a tough plastic casing with the pressure characteristics of a centrifugal fan.

A range of eight models from 100 to 315mm dia. duct sizes. The 315mm dia. model has been specifically developed for use with rigid ductwork. Air volumes from 0.059m<sup>3</sup>/s to 0.42m<sup>3</sup>/s in free air and capable of pressure development up to 550 Pa.

Powerflow has 50-80mm long inlet and discharge spigots allowing easy installation and fixing. The adjustable mounting foot allows the terminal box to be rotated to any angle and allows plenty of space and adjustment for screw fixing. The robust fire-retardant polymeric casing combined with internal guide vanes ensures optimum airflow management through the unit.

## Electrical

Motors are 220-240V single phase 50Hz. Capacitor start and run. The terminal box is integral with the case moulding. All motors are fitted with Standard Thermal Overload Protection (S.T.O.P.).

## Motor/Impellers

All models are fitted with an external rotor motor and backward curved impeller assembly for long life and reliability.

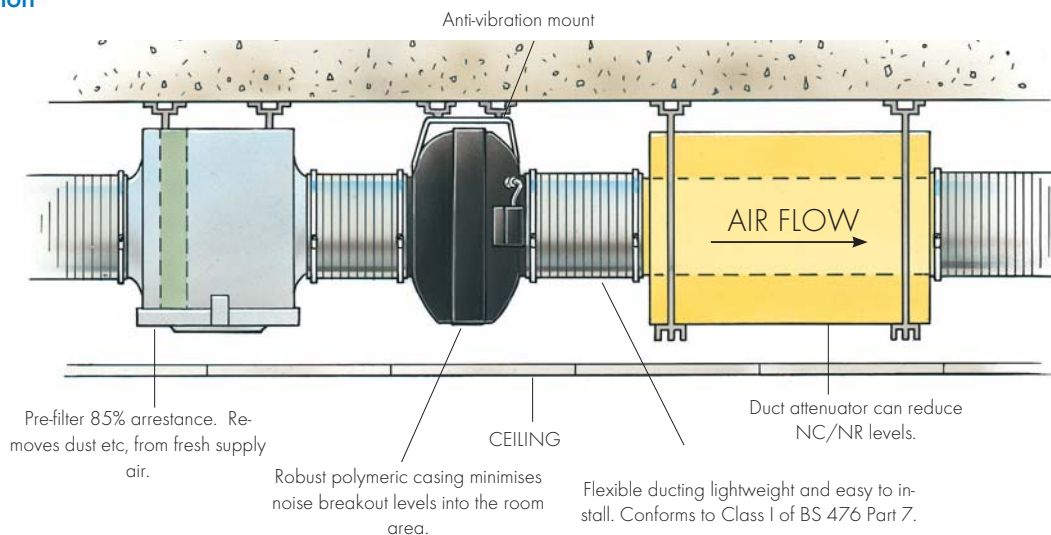
All sizes are IP44 according to BS EN 60529. Ball bearings are greased for life and designed to run at any angle. Insulation is Class 'B' (from -30°C to +40°C). Manufacture is controlled to BS EN ISO 9001.

## Accessories

A full range of accessories are available with the Powerflow in-line centrifugal duct fans such as:

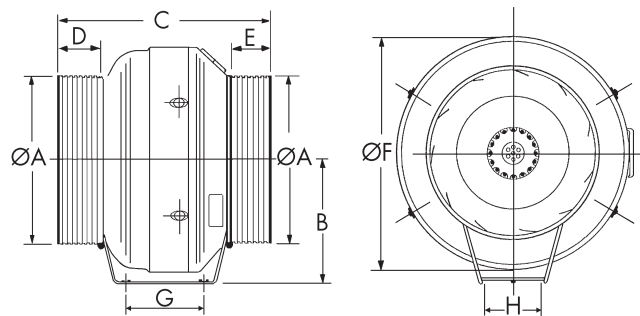
- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. Starters
- Pre & Secondary Filter Cassettes
- Electric Heater Batteries
- In-Line Attenuators
- Backdraught Shutters
- Fast Clamps

## Typical Installation





### Fan Dimensions (mm)



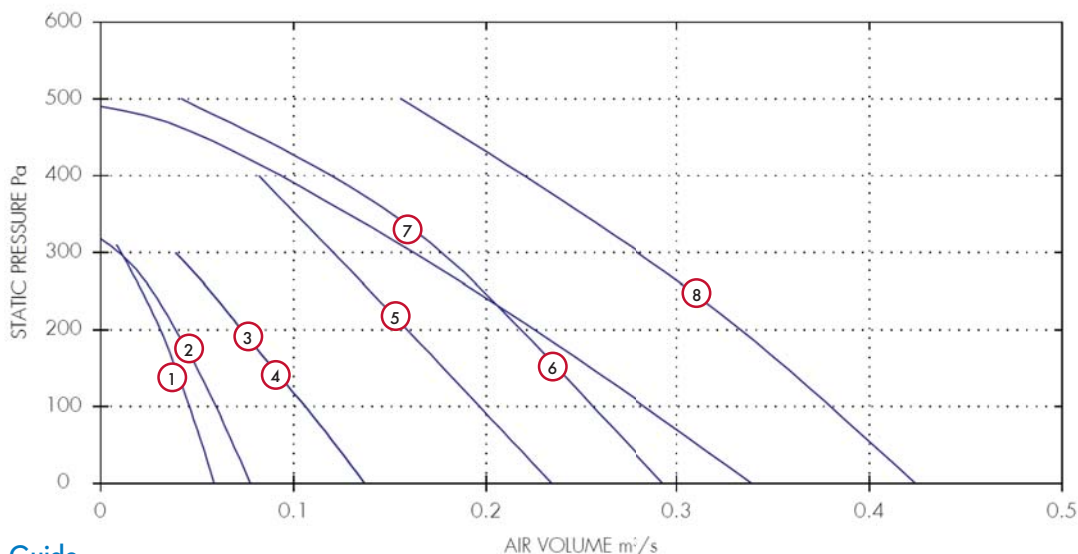
Dia	Øa	b	c	d	e	Øf	g	h	Weight kg
100*	100	146	287	52	52	254	110	270*	2.2
125*	125	146	287	60	60	254	110	270*	2.2
150*	149	175	287	52	52	301	110	270*	3.1
160*	160	175	287	52	52	301	110	270*	3.1
200	200	193	290	47	47	344	92	130	4.3
250	250	218	312	65	65	367	92	130	4.6
315	315	250	366	76	76	405	92	130	5.9
315HP	315	250	366	76	76	405	92	130	6.1

\*Sizes 100, 125, 150 & 160 have a flat mounting foot

# Powerflow In-Line Duct Fans (ACP)

## Performance Curve

100 to 315 dia. - 2 Pole - 1 Phase



## Performance Guide

Dia.	Nominal rpm	Curve Ref	m <sup>3</sup> /s at Pa										S.C. Amps	F.L.C. Amps	dB(A) @3m		
			0	50	100	150	200	250	300	350	400	Watts					
100	2740	1	0.059	0.052	0.046	0.039	0.031	0.021						83	0.85	0.34	35
125	2410	2	0.078	0.069	0.06	0.05	0.039	0.027						86	0.85	0.34	35
150	2520	3	0.137	0.122	0.106	0.089	0.073	0.057	0.039					100	1.1	0.43	45
160	2520	4	0.137	0.122	0.106	0.089	0.073	0.057	0.039					100	1.1	0.43	45
200	2620	5	0.234	0.214	0.194	0.177	0.159	0.138	0.119	0.1	0.082			150	1.52	0.68	47
250	2720	6	0.29	0.27	0.25	0.234	0.216	0.197	0.177	0.156	0.124			185	1.6	0.77	48
315	2720	7	0.339	0.313	0.274	0.244	0.218	0.191	0.161	0.131	0.098			182	1.57	0.75	51
315HP	2667	8	0.42	0.4	0.38	0.35	0.33	0.3	0.27	0.247	0.222			300	4	1.3	52

Figures are based on a 1 Phase Motor

## Sound Data

Stock Ref		63	125	250	500	1K	2K	4K	8K	dB(A) @3m
ACP10012B	INLET	81	84	75	68	61	52	46	40	51
ACP10012B	OUTLET	82	84	77	68	61	52	49	43	52
ACP10012B	BREAKOUT	52	48	57	53	53	48	40	38	35
ACP12512B	INLET	80	79	76	70	61	57	51	45	51
ACP12512B	OUTLET	82	80	76	71	61	54	51	43	52
ACP12512B	BREAKOUT	52	48	57	53	53	48	40	38	35
ACP15012B	INLET	79	84	84	76	69	65	61	52	59
ACP15012B	OUTLET	78	84	83	74	69	65	60	50	58
ACP15012B	BREAKOUT	59	62	66	62	62	58	51	43	45
ACP16012B	INLET	81	81	79	76	66	61	58	49	55
ACP16012B	OUTLET	80	82	81	73	67	62	57	49	54
ACP16012B	BREAKOUT	59	62	66	62	62	58	51	43	45
ACP20012B	INLET	80	79	74	76	67	65	66	60	57
ACP20012B	OUTLET	79	79	74	71	69	69	65	59	55
ACP20012B	BREAKOUT	54	70	67	66	62	59	53	43	47
ACP25012B	INLET	84	80	74	74	69	69	67	63	57
ACP25012B	OUTLET	75	79	73	72	72	73	68	64	59
ACP25012B	BREAKOUT	60	71	70	66	65	62	55	44	48
ACP31512B	INLET	84	80	74	74	69	69	67	63	56
ACP31512B	OUTLET	75	79	73	72	72	73	68	64	59
ACP31512B	BREAKOUT	72	71	73	71	66	63	55	45	51
ACP31512/HP	INLET	63	72	75	77	79	75	74	67	63
ACP31512/HP	OUTLET	65	73	76	79	76	80	74	68	64
ACP31512/HP	BREAKOUT	61	68	69	71	68	67	58	51	52

### Accessories



Stock Ref	Electronic Controller	Auto Transformer	D.o.I. Starter & Coil	*Edemand Controller Stock Ref			†Duct Air Heater	Filter Cassette	Bag Filter Cassette
	Stock Ref	Stock Ref	Stock Ref	Voltage Control	1/3 Phase Inverter	3 Phase Inverter	Stock Ref	Stock Ref	Stock Ref
ACP10012	W10303102M	10314103	444744 + 444697	444164	-	-	10531100T1	10532100	10533100
ACP12512	W10303102M	10314103	444744 + 444697	444164	-	-	10531125T1	10532125	10533125
ACP15012	W10303102M	10314103	444744 + 444698	444164	-	-	10531150T1	10532150	10533150
ACP16012	W10303102M	10314103	444744 + 444698	444164	-	-	-	-	-
ACP20012	W10303102M	10314103	444744 + 444699	444164	-	-	10531200T1	10532200	10533200
ACP25012	W10303102M	10314103	444744 + 444699	444164	-	-	10531250T1	10532250	10533250
ACP31512	W10303102M	10314103	444744 + 444699	444164	-	-	10531315T1	10532315	10533315
ACP31512/HP	W10303102M	10314103	444744 + 444700	444164	-	-	10531315T1	10532315	10533315

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



Stock Ref	Duct Attenuator				Heat Exchange Unit
	300mm Stock Ref	600mm Stock Ref	900mm Stock Ref	1200mm Stock Ref	Stock Ref
ACP10012	10534100	10535100	10536100	-	-
ACP12512	10534125	10535125	10536125	-	-
ACP15012	10534150	10535150	10536150	-	-
ACP16012	-	-	-	-	-
ACP20012	-	10535200	10536200	10537200	10538290+10577315+10578315
ACP25012	-	10535250	10536250	10537250	10538290+10577315+10578315
ACP31512	-	10535315	10536315	10537315	10538290+10577315
ACP31512/HP	-	10535315	10536315	10537315	10538290+10577315