



**COMPACT 2000**  
**AXIAL FANS**

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**models**  
**ø315**  
**to**  
**ø630mm**

**Quality Industrial Fans**



# Setting new stand in fan design



- **Compact**
- **Efficient**
- **Reliable**
- **Quality Products**

A close-up, low-angle photograph of a fan's metal grille. The grille is made of concentric, curved metal rings. In the foreground, a portion of the fan's motor housing is visible, showing a circular opening and several mounting screws. The lighting is warm, creating a golden glow on the metal surfaces.

**ards**

# COMPACT 2000 AXIAL FANS

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Compact 2000 axial fans are quality units of proven reliability and performance. Their compact, ultra low profile combined with a wide range of styles and sizes make them industries preferred choice for a broad range of applications. Units suit duct, wall and roof unit mounting.

All Compact 2000 units have been vigorously tested, achieving very accurate airflow, motor and noise level published data. The general design and material finish ensures a very durable weather-proofed range.

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Air Performance

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# Introduction

The Compact 2000 range provides 3 alternative styles in each of the 7 fan model sizes from 315 to 630mm nominal diameter. Each model uses the established, Elta highly efficient aerofoil bladed impellers, produced from GRP and retained in an aluminium hub. Electrical input is via flying leads, or terminal box depending on the model selected. A wide selection of accessories is also available, including speed controllers. All units are protected to IP55.

## ■ Standard Styles

- Plate Mounted
- Ducted
- Ring Mounted



## ■ Motor Design

The Compact 2000 low profile is largely due to the compact design of its range of induction motors. Designed and matched to the aerodynamic performance of the impellers, these highly efficient, lightweight, yet robust motors have a proven reliability. Fitted with sealed for life, maintenance free 'ball' bearings, all units have integral 'thermal overload protection' (for remote setting).

All Compact 2000 motors are Class F insulated to BS4999 Part 101 and IEC 34-1, weather proofed to IP55 and ideal for speed control.





## ■ Electrical Inputs

Most models, suit either 220/240V - 1ph - 50Hz, or 380/415V - 3ph - 50Hz, with other supplies available, including 60Hz. Depending on model type, units are fitted with a 'protected' terminal box (IP55), or flying leads.

## ■ Material & Finish

The all metal fan casing and guards provide a long lasting robust construction. All parts are suitably treated to ensure full protection. Fan ducting and motor housings are powder coated in highly durable polyester epoxy , in a pastel beige (RAL 7032). Guards are bright zinc plated.

## ■ Aerodynamic Impellers

Elta's renowned, high efficiency adjustable pitch impellers with aerodynamic blades in GRP and die cast aluminium hubs are used throughout the Compact 2000 range.

## ■ Quality Assured

Every Compact 2000 unit is fully tested by Elta before dispatch and supplied, in an individual carton, ready to install.



# Compact Fan Styles

Three alternative styles of fan casing and mounting are available for each of the 7 model sizes. These should enable most application requirements to be met.

Impeller guards are available - refer to 'Accessories'.

- Plate mounted - CP series
- Ducted - CD series
- Ring mounted - CR series

*Details of larger diameter Compact axial fans are available on request.*

## ■ Plate Mounted - CP Series

Extremely compact plate mounted style with venturi inlet and 4 hole mounting.

- 7 models ( $\varnothing 315$  to  $\varnothing 630$ mm)
- Supplied with flexible conduit/flying leads
- Capacitor supplied loose (1 phase models)
- Wire guard fitted on motor side of impeller



## ■ Ducted - CD Series

Fully ducted with mounting flanges at both ends of fan casing.

- 7 models ( $\varnothing 315$  to  $\varnothing 630$ mm)
- Terminal box externally mounted on casing
- Capacitor fitted (1 phase models)



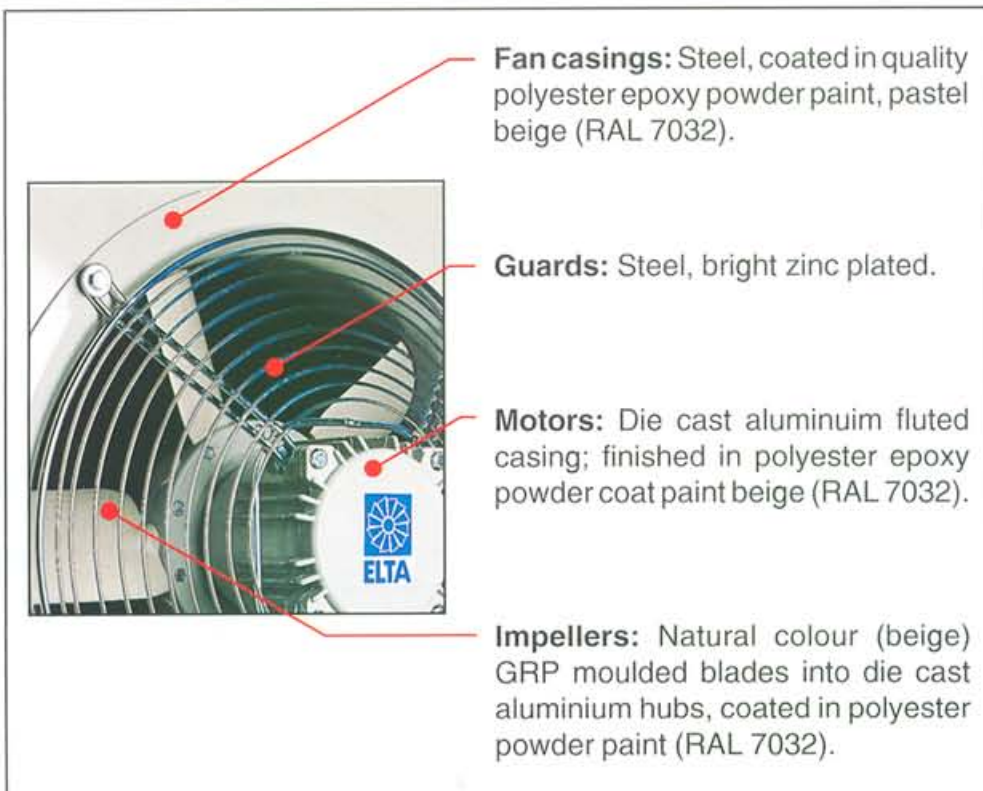
## ■ Ring Mounted - CR Series

Ultra compact venturi ring style, based on the Plate style but with plate removed. Venturi mounting is via 4 holes which also retain the motor mounting guard.

- 7 models (ø315 to ø630mm)
- Supplied with flexible conduit/flying leads
- Capacitor supplied loose (1 phase models)
- Wire guard fitted on motor side of impeller



## ■ Material & Finish



# Air Performance

All Elta fans are thoroughly tested to BS 848 Part 1 (1980) - Aerodynamic Performance and Part 2 (1985) - Sound Level Performance.

Extensive testing of the Compact 2000 range has provided totally reliable, detailed published test data.

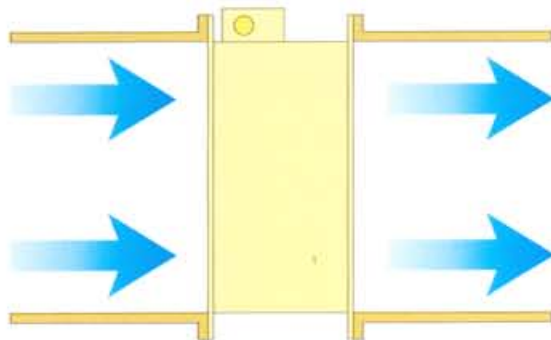


## ■ Test Method

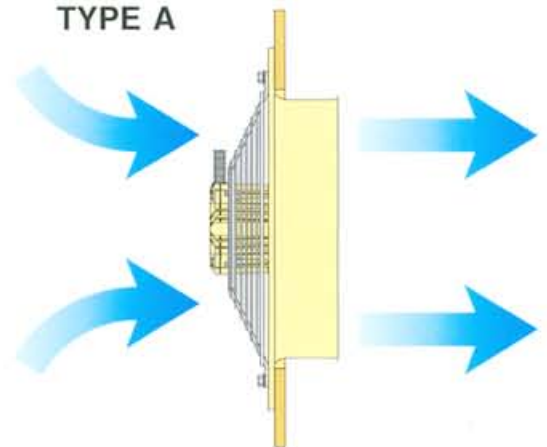
Results are obtained under the following BS/ISO test duct arrangements:-

- **Ducted model** - Type 'D' ducted inlet and outlet.
- **Plate and Ring models** - Type 'A' free inlet and outlet.

TYPE D



TYPE A

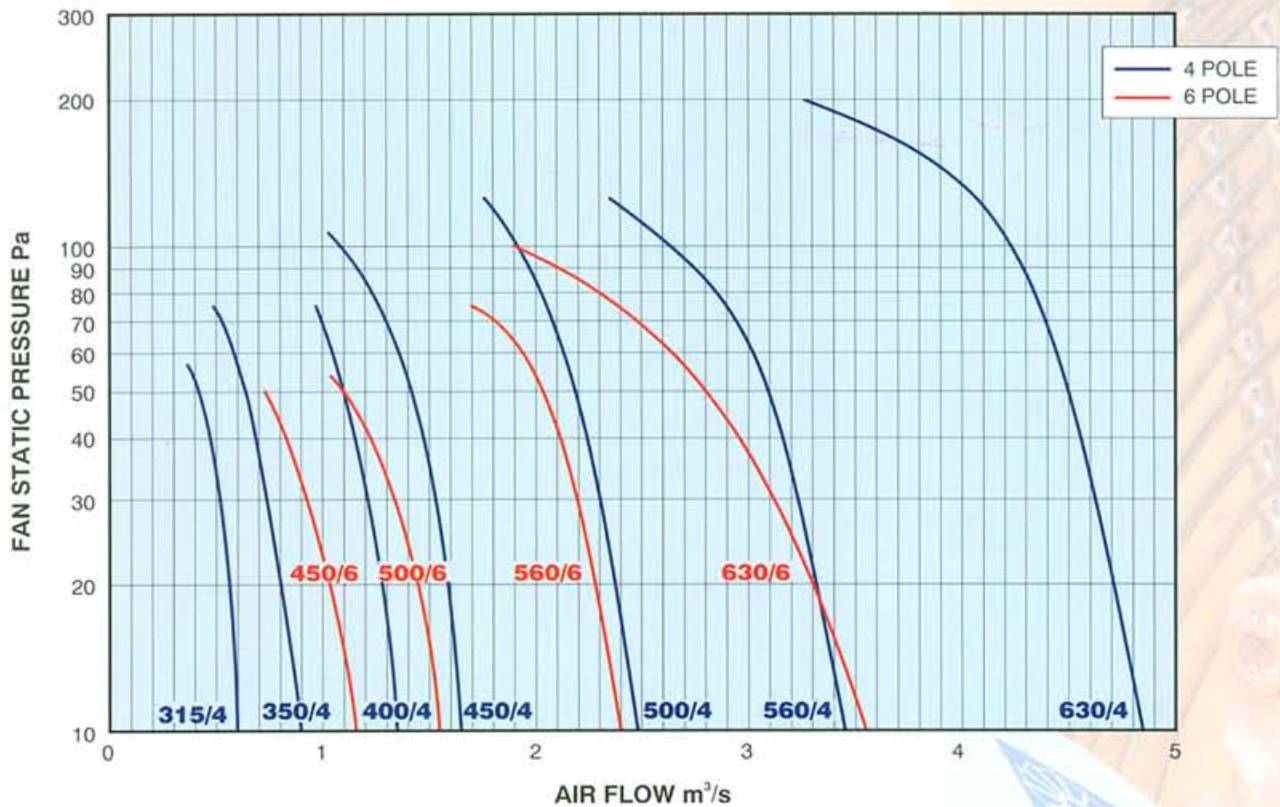


## ■ Airflow Data

FAN MODEL	Nom. Speed (rpm)	STATIC PRESSURES AT VOLUME FLOW										
		SWG (ins)	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.2
		(Pa)	0	25	50	75	100	125	150	175	200	250/300
<b>315/4</b>	1300	cfm m <sup>3</sup> /s	1272 0.60	1145 0.54	890 0.42	-	-	-	-	-	-	-
<b>350/4</b>	1300	cfm m <sup>3</sup> /s	1908 0.90	1632 0.77	1357 0.64	1039 0.49	-	-	-	-	-	-
<b>400/4</b>	1300	cfm m <sup>3</sup> /s	2862 1.35	2650 1.25	2332 1.10	2056 0.97	-	-	-	-	-	-
<b>450/6</b>	850	cfm m <sup>3</sup> /s	2459 1.16	2078 0.98	1548 0.73	-	-	-	-	-	-	-
<b>450/4</b>	1300	cfm m <sup>3</sup> /s	3498 1.65	3286 1.55	3032 1.43	2650 1.25	2332 1.10	-	-	-	-	-
<b>500/6</b>	850	cfm m <sup>3</sup> /s	3286 1.55	2968 1.40	2332 1.10	-	-	-	-	-	-	-
<b>500/4</b>	1300	cfm m <sup>3</sup> /s	5258 2.48	4961 2.34	4664 2.20	4346 2.05	4028 1.90	3731 1.76	-	-	-	-
<b>560/6</b>	850	cfm m <sup>3</sup> /s	5088 2.40	4664 2.20	4346 2.05	3604 1.70	-	-	-	-	-	-
<b>560/4</b>	1300	cfm m <sup>3</sup> /s	7314 3.45	6890 3.25	6572 3.10	6148 2.90	5512 2.60	4982 2.35	-	-	-	-
<b>630/6</b>	850	cfm m <sup>3</sup> /s	7526 3.55	6784 3.20	5936 2.80	5088 2.40	4028 1.90	-	-	-	-	-
<b>630/4</b>	1300	cfm m <sup>3</sup> /s	10282 4.85	9858 4.65	9540 4.50	9328 4.40	8904 4.20	8692 4.10	8056 3.80	7526 3.55	6996 3.30	-

## ■ Airflow Performance Curves

For alternative selections please discuss with Elta



## ■ Noise Level Data

FAN MODEL	DUCT SOUND POWER LEVELS* (LW 10 <sup>12</sup> WATTS)								dBA @3m
	FREQUENCY Hz								
	63	125	250	500	1000	2000	4000	8000	
315/4	69	67	63	63	60	57	53	49	47
350/4	71	70	65	67	66	59	55	54	52
400/4	71	72	68	70	69	64	61	56	55
450/6	66	64	66	64	61	58	54	45	50
450/4	74	75	72	71	70	67	64	56	59
500/6	72	67	69	68	69	63	57	51	54
500/4	77	81	78	73	72	72	69	62	62
560/6	76	73	76	76	73	71	60	56	58
560/4	81	83	80	79	78	75	73	67	65
630/6	83	80	78	77	76	73	68	59	59
630/4	81	82	86	84	80	78	77	72	68

\* Sound levels are quoted as in-duct levels measured in accordance with BS 848 Part 2 1985. Inlet side levels are generally 1 to 2dB lower. The levels are applicable with the fan operating at approximately 50% of its peak pressure capacity. The acoustics around the installed fan unit will affect the dBA reading if measured when installed.

## ■ Speed Variation

Airflow readings given are typical for units running at full nominal speed. All units are speed controllable down to 40% of nominal speed. Speed controller details are on Order Codes and Speed Controllers page.



# Order Codes & Speed

## ■ 220V/240V - 1ph - 50Hz

FAN ORDER CODE*	No. of poles	Speed (rpm)	Max. power (kW)	Current (A)		Capacitance (µF)	SPEED CONTROLLER O/CODE
				Full load	Stalled		
315/4-1	4	1320	0.09	0.9	1.45	10	EL31
350/4-1	4	1320	0.09	0.9	1.45	10	EL31
400/4-1	4	1300	0.25	1.80	3.60	15	EL31
450/6-1	6	850	0.12	1.05	2.00	10	EL31
450/4-1	4	1300	0.25	1.80	3.60	15	EL31
500/6-1	6	860	0.18	1.55	3.50	15	EL31
500/4-1	4	1350	0.55	3.60	10.8	30	EL61
560/6-1	6	875	0.25	2.20	5.50	15	EL31
560/4-1	4	1350	0.75	4.90	15.0	30	EL61
630/6-1	6	850	0.55	6.00	12.6	15	EL61
630/4-1	4	-	-	-	-	-	-

\* To complete full order code reference refer to 'How to Order' below.

## ■ 380V/415V - 3ph - 50Hz

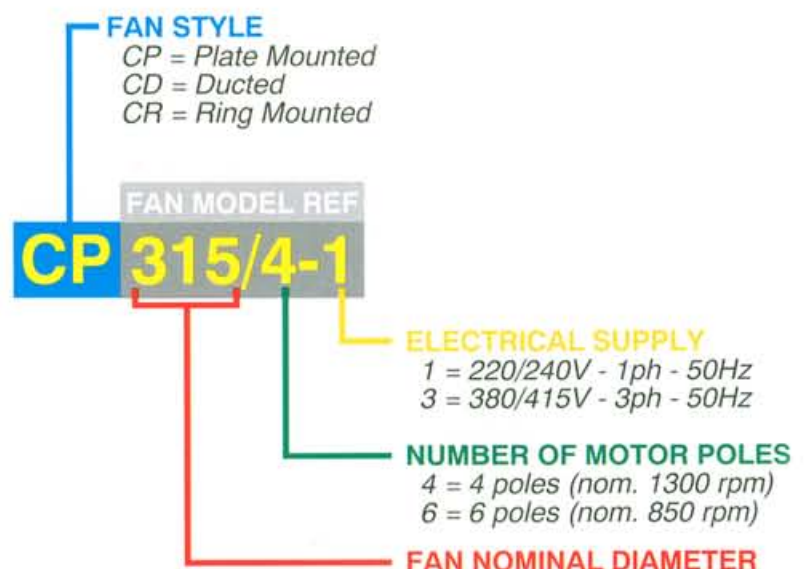
FAN ORDER CODE*	No. of poles	Speed (rpm)	Max. power (kW)	Current (A)		SPEED CONTROLLER O/CODE
				Full load	Stalled	
315/4-3	4	1250	0.12	0.50	1.15	EL33
350/4-3	4	1250	0.12	0.50	1.15	EL33
400/4-3	4	1350	0.37	1.40	4.50	EL33
450/6-3	6	850	0.18	0.68	1.70	EL33
450/4-3	4	1350	0.37	1.40	4.50	EL33
500/6-3	6	830	0.25	0.94	2.40	EL33
500/4-3	4	1320	0.55	1.75	6.20	EL33
560/6-3	6	830	0.25	0.94	2.40	EL33
560/4-3	4	1320	0.75	2.00	7.50	EL35
630/6-3	6	850	0.55	1.90	5.80	EL35
630/4-3	4	1320	1.50	4.30	15.5	EL310

\* To complete full order code reference refer to 'How to Order' below.

## ■ How to Order

Each Compact 2000 basic 'fan model reference' is the same for each of the 3 alternative 'styles' (CP, CD, or CR). The fan model reference defines the nominal fan diameter, speed and electrical input and therefore air performance. Having selected the fan model reference, simply add the style prefix code required (CP, CD or CR).

For alternative electrical inputs etc. please discuss with Elta, or their representative.



# Controllers

## ■ Speed Controllers

Quality electronic type speed controllers, matched to the Compact 2000 range are available for panel/wall mounting. Each unit includes a speed control knob and separate on/off switch. Order codes are shown in the table opposite.

Elta recommend the use of 3 wire control on single phase fan units when speed controlled, with operation down to 100 volts being permissible.

When speed control is required, Elta can only guarantee the fan unit, when operated via an Elta supplied controller and when the thermal overload protection is utilised.



Single phase controllers pictured.

In addition all wiring/cabling between the fan and its control equipment must be carried out by competent electricians to IEC Regulations, with special regard to Part 552-01-02/03.

**Material and finish;** Robust plastic with brushed aluminium fascia.

*N.B. For all applications requiring low noise sensitivity at reduced fan speed, transformer type controllers provide an optimum solution. Details on request.*

## ■ Environmental Specifications

Compact 2000 units meet IP55 conditions and safely operate within the following temperature ranges.

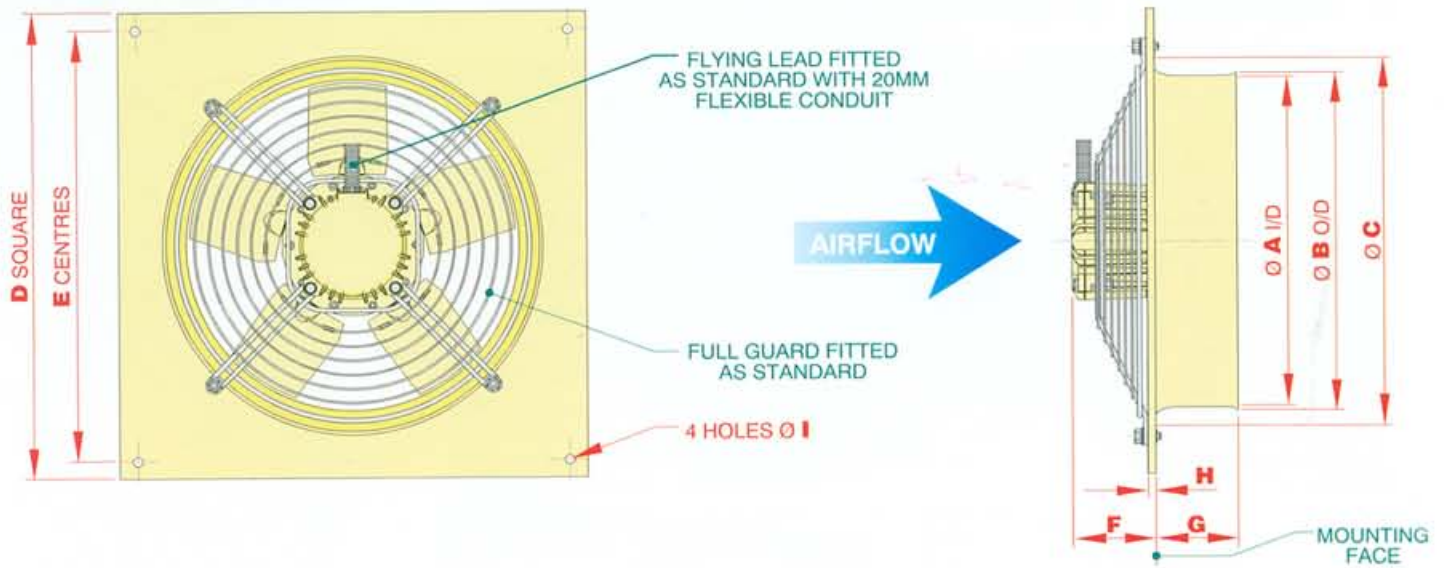
**Directly wired** (not speed controlled)  
-20°C to +70°C

**Under speed control**  
-20°C to +50°C

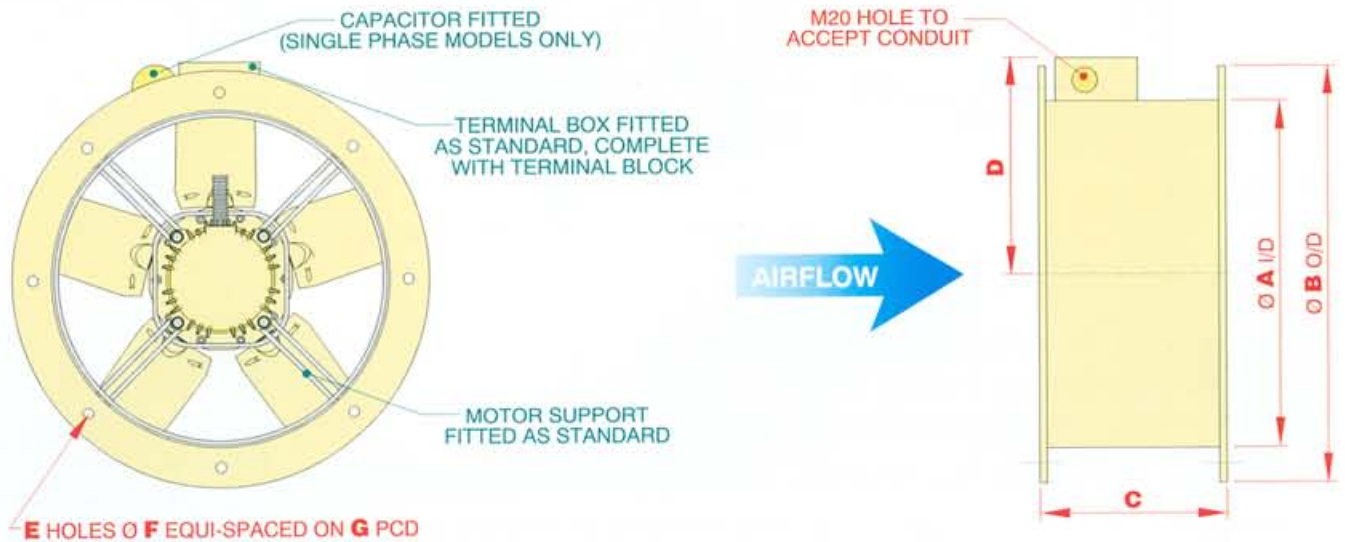


# Dimensional Data

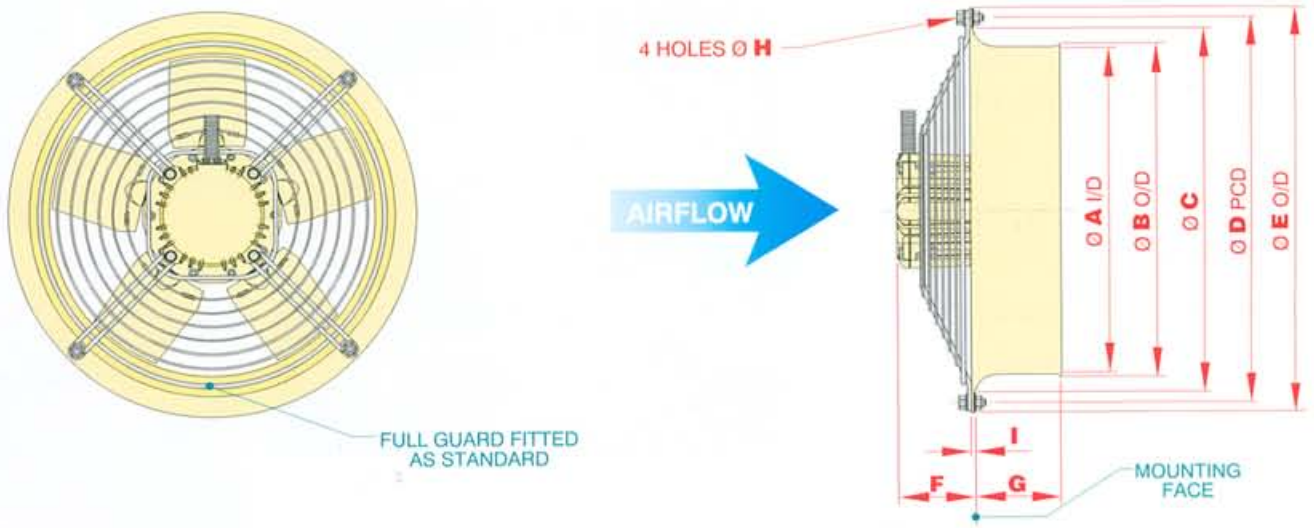
## ■ Plate Mounted - CP Series



## ■ Ducted - CD Series



## ■ Ring Mounted - CR Series



<b>A</b> FAN DIA	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	WT (kg)
315	325	360	430	380	85	83	10	10	9.0
350	360	395	485	435	85	83	10	10	9.5
400	410	450	540	490	84	96	12	10	13.5
450	460	500	575	535	84	96	12	10	14.0
500	510	560	655	615	140	98	15	10	21.0
560	575	620	725	670	140	98	15	10	23.0
630	645	700	805	750	139	103	20	10	28.0

<b>A</b> FAN DIA	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	WT (kg)
315	382	180	207	8	9.5	356	8.5
350	421	180	224	8	9.5	395	9.0
400	466	190	249	12	9.5	438	13.0
450	515	190	274	12	9.5	487	14.0
500	567	250	300	12	9.5	541	20.0
560	636	250	330	16	11.5	605	22.0
630	709	250	365	16	11.5	674	24.0

<b>A</b> FAN DIA	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	WT (kg)
315	325	360	380	400	76	95	10	1.2	6.5
350	360	395	415	435	76	95	10	1.2	7.0
400	410	450	470	490	73	110	10	1.2	10.5
450	460	500	520	540	73	110	10	1.2	11.0
500	510	560	580	600	126	115	10	1.6	14.5
560	575	620	650	680	126	115	10	1.6	15.5
630	645	700	730	760	118	125	10	1.6	17.0



# Accessories

## ■ Impeller Guards

A flat guard that mounts directly over the impeller outlet on Ducted, Plate and Ring mounted models.

**Material & finish;** Steel, bright zinc plated.

FAN NOM. DIA.	ORDER CODE
315	AGF-0315-C
350	AGF-0350-C
400	AGF-0400-C
450	AGF-0450-C
500	AGF-0500-C
560	AGF-0560-C
630	AGF-0630-C



Supplied loose with fixings



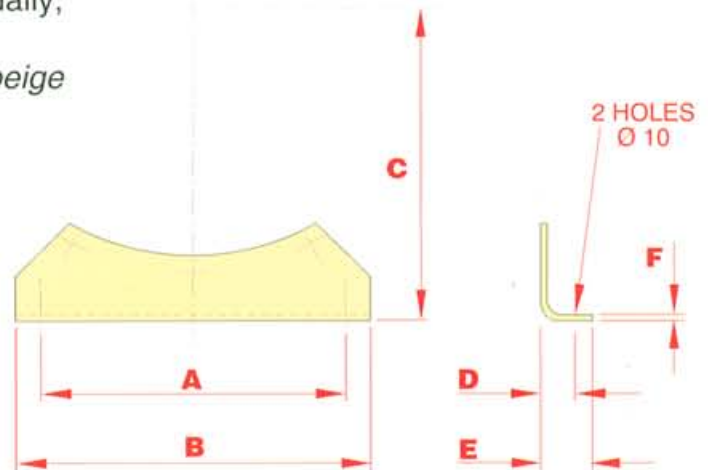
Supplied fitted

## ■ Feet

For free standing support of Ducted models. Mounts directly to Ducted flange. Supplied individually, less fixings.

**Material & finish;** Steel, painted in pastel beige (RAL 7032).

FAN NOM. DIA.	ORDER CODE	DIMENSIONS					
		A	B	C	D	E	F
315	AF-0315-C	250	280	200	20	40	2.0
350	AF-0350-C	280	310	225	20	40	2.0
400	AF-0400-C	220	250	250	20	40	2.0
450	AF-0450-C	240	275	275	20	40	2.0
500	AF-0500-C	280	315	315	25	50	2.5
560	AF-0560-C	320	355	355	25	50	2.5
630	AF-0630-C	360	400	400	25	50	2.5

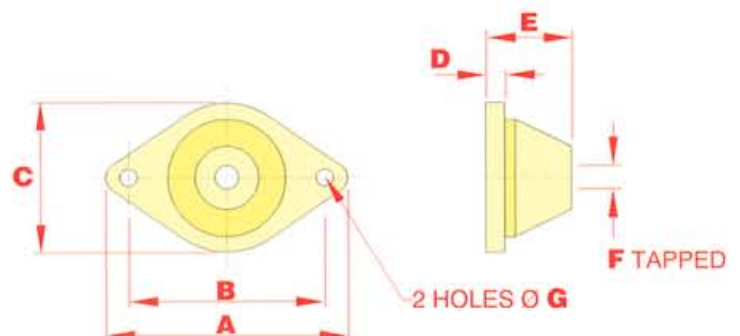


## ■ Anti-Vibration Mounts

Fits directly to the mounting feet of Ducted models to help minimise noise in sensitive locations. Supplied individually, complete with fixing.

**Material & finish;** Rubber with steel insert.

FAN NOM. DIA.	ORDER CODE	DIMENSIONS						
		A	B	C	D	E	F	G
315	AA-S1B	64	50	43	2.0	20	M6	7.0
350								
400								
450								
500	AA-S1G							
560								
630								



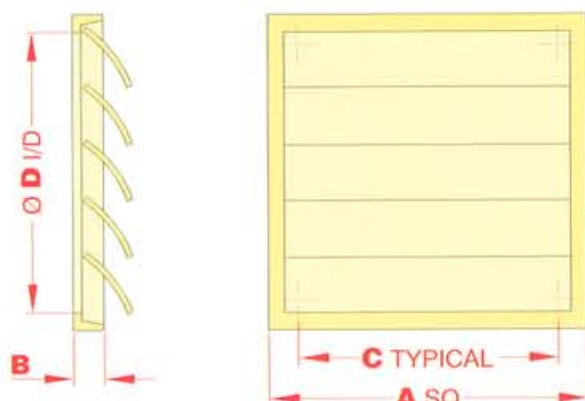
Note - Dimensions may vary with alternative suppliers.

## ■ Louvre Shutters

An attractive, all-weather louvre with vanes that open automatically when fan airflow commences. Fits independently of fan and ideally wall mounted downstream of fan unit. Supplied with fixings.

- 7 sizes to suit each fan diameter
- Wipe clean finish
- Eliminates backdraft

**Material & finish;** Durable polypropylene in light grey.



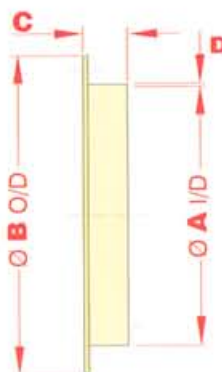
FAN NOM. DIA.	ORDER CODE	DIMENSIONS			
		A	B	C	D
315	AL-0315-C	347	26	276	310
350	AL-0350-C	397	26	310	360
400	AL-0400-C	459	26	364	420
450	AL-0450-C	501	26	395	460
500	AL-0500-C	549	31	445	510
560	AL-0560-C	605	28	522	565
630	AL-0630-C	696	31	626	656

## ■ Matching Flanges

Fits directly to Ducted fan mounting flange to provide a coupling for a Flexible Collar, or an alternative fixing for any other matched interconnection e.g. customers ducting. Supplied individually less fixings.

**Material & finish;** Steel, painted in pastel beige (RAL 7032).

FAN NOM. DIA.	ORDER CODE	DIMENSIONS			
		A	B	C	D
315	AR-0315-C	315	382	30	1.2
350	AR-0350-C	350	421	30	1.2
400	AR-0400-C	400	466	40	1.2
450	AR-0450-C	450	515	40	1.2
500	AR-0500-C	500	567	45	1.6
560	AR-0560-C	560	636	45	1.6
630	AR-0630-C	630	709	45	1.6

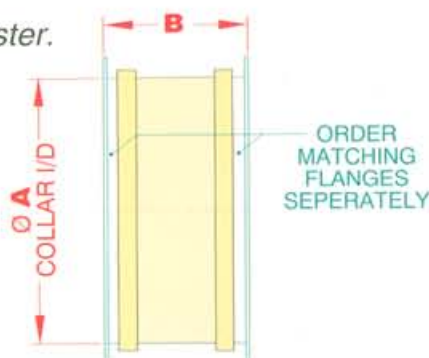


## ■ Flexible Collar and Clips

Fits directly to Matching Flange to provide a flexible interconnection with any matched interface e.g. ducting. Supplied individually, complete with fixings.

**Material & finish;** PVC coated polyester.

FAN NOM. DIA.	ORDER CODE	DIMENSIONS	
		A	B
315	AC-0315-C	318	150
350	AC-0350-C	353	150
400	AC-0400-C	403	150
450	AC-0450-C	453	150
500	AC-0500-C	503	150
560	AC-0560-C	563	150
630	AC-0630-C	633	150





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