

ECONOCOWL ROOF VENTILATORS

GENERAL

temperzone have developed the Econocowl series of roof ventilators to provide the market with an economical, lightweight and easily installable unit suitable for both supply and extract purposes.

Supply Air, Vertical Discharge and Horizontal Discharge versions are available, providing a wide performance range made possible by the use of fully speed controllable fans to obtain the correct air flow for all needs.

The Econocowl is also available without the fan fitted.

APPLICATION

The Econocowl has a wide range of supply and extract applications.

Typical applications include the ventilation of showrooms, warehouses, workshops, swimming pools, gymnasiums, restaurants, clubrooms and plantrooms.

The Econocowl is also ideally suited to fresh air supply applications such as to toilet lobbies, air conditioning units and process areas.

The Vertical Discharge version, suitable only for extract, is ideal where contam-inated smelly air must be discharged well clear of the roof, fresh air intakes and neighbouring properties.

As the Econocowl is very simple in construction the initial cost of installation is low. Additionally, on going maintenance is negligible due to the high quality of the fans utilised - hence the product name **Econocowl**.

CONSTRUCTION

Primarily the cowls are manufactured from glass reinforced polyester (fibreglass) with an outer gelcoat in a light grey colour. Other colours are available to suit architectural requirements. (Note: an extra charge may be applicable.)

Bird mesh is fitted as standard to all Supply and Horizontal Discharge cowls.

Size 8 Vertical Discharge cowls are constructed of corrosion resistant aluminium.

FAN

The primary fan fitted to the Econocowl is the high efficiency external rotor motor plate axial fan of German origin. This is utilised where the fan is to handle low to medium pressures.

The fan blades are aerodynamically profiled providing high efficiency and are made of die cast aluminium or plastic (n.b. sizes 200-300 are pressed galvanised steel). The mounting plates are galvanised steel with electrostatically applied powder coating.

For higher pressure applications and for harsh environments an adjustable pitch tube axial flow fan can be utilised. Duties for these fans are available from your local **temperzone** agent.

MOTORS

Motors fitted to the standard fans are all of the direct drive external rotor type which offer:

- long service life
- 100% speed control through an autotransformer or electronic controller
- low starting currents.

The motors are all fitted with thermal contacts embedded in the motor windings as standard to provide protection against overload, mains phase failure, stalling of the motor and excessive ambient temperatures. A condition of the warranty is that thermal contacts must be utilised in the electric circuit.

Bearings are West German ball bearings, sealed for life.

Motors are protected to IP 44.

The use of single phase fans is recommended wherever possible because of the following advantages:

- two core and earth cable only
- correct rotation assured
- motor protection through the thermal contacts wired in series with the motor windings
- low cost speed control
- wide range of stock sizes

SPEED CONTROL

Being of the external rotor motor type, these fans are ideal for 100% speed control utilising voltage control. This can be done through transformers or electronically.

Single phase motors are best controlled electronically with any number of fans being connected to one controller up to a total current of 5amps.

Five step transformer control is also available.

Three phase motors can be more economically controlled with 5 step transformers, however electronic controllers are available for any size and combination of fans.

The three phase electronic controllers are available with pressure or temperature dependant regulation for automatic control of fan speed.

COWL ONLY

The Econocowl makes an ideal roof cowl for passive ventilation or for a smart looking end to a duct run with its fan elsewhere in the system. If required, a fan can be very simply fitted at a later date.

DAMPERS

Vertical discharge models have aluminium dampers incorporated into their construction as standard.

Simple duct mounted models are available for the horizontal cowls. These are manufactured from either plastic or aluminium.

SOUND LEVELS

The dB(A) figures listed are free field sound pressure levels (SPL) measured 3 m from the fan inlet. These figures are a guide only as site conditions, installation, ducting, reflection and absorption of adjacent surfaces will effect the overall resultant noise level.

ORDERING DETAIL

Example:

Econocowl E 450-4 H

Phase: E - single
D - three

Fan Size: 450

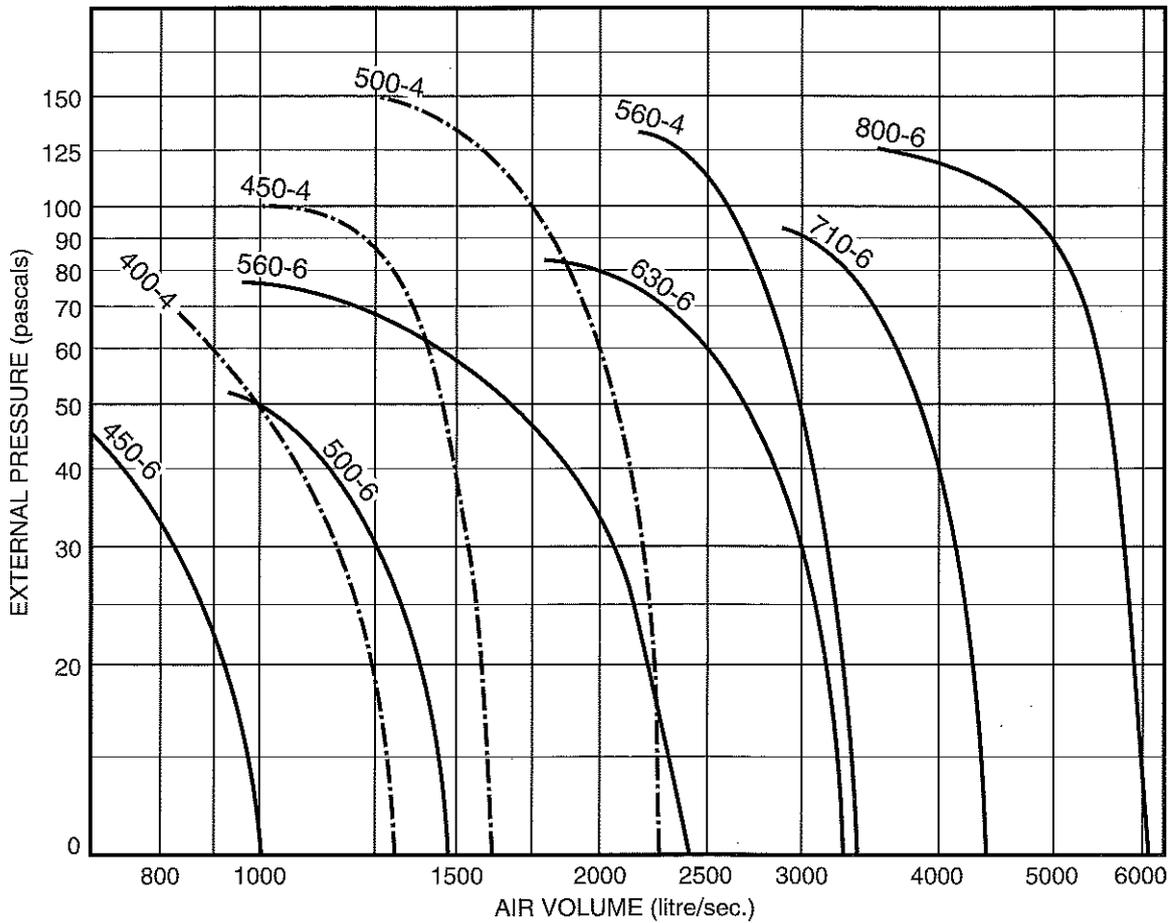
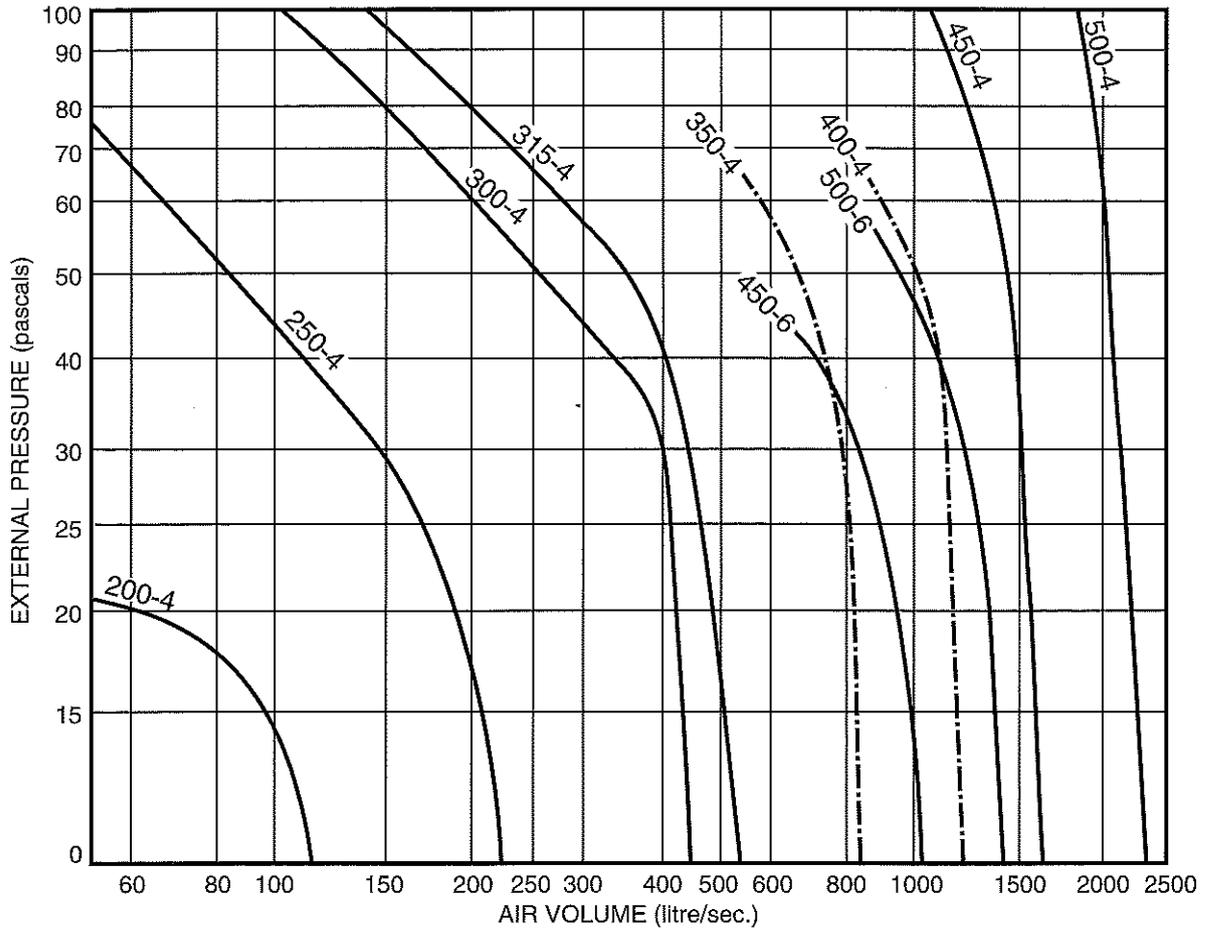
Poles: 4

Version: S - supply
V - vertical discharge
H - horizontal discharge

The manufacturer operates a quality management system that conforms to international standard ISO 9002.

MODEL	COWL SIZE	MAX. RPM	KW	PHASE	AMPS	dB(A) @ 3m
200 - 4	2	1220	0.03	1	0.13	37
250 - 4	2	1350	0.06	1	0.27	41
300 - 4	3	1290	0.10	1	0.44	49
315 - 4	3	1380	0.12	1	0.55	50
350 - 4	4	1390	0.18	1	0.82	52
400 - 6	4	900	0.09	1	0.40	43
400 - 4	4	1335	0.22	1	1.00	53
450 - 6	5	910	0.15	1	0.72	46
450 - 4	5	1370	0.33	1	1.50	54
450 - 4	5	1335	0.33	3	0.58	54
500 - 6	5	935	0.20	1	0.88	48
500 - 4	5	1370	0.50	1	2.30	55
500 - 4	5	1340	0.52	3	1.10	55
560 - 4	6	930	0.94	3	1.79	60
560 - 6	6	930	0.40	1	1.85	52
560 - 6	6	930	0.34	3	0.75	52
630 - 6	6	915	0.54	1	2.55	56
630 - 6	6	925	0.53	3	1.19	56
710 - 6	8	845	0.96	3	1.85	58
800 - 6	8	855	1.50	3	3.10	64

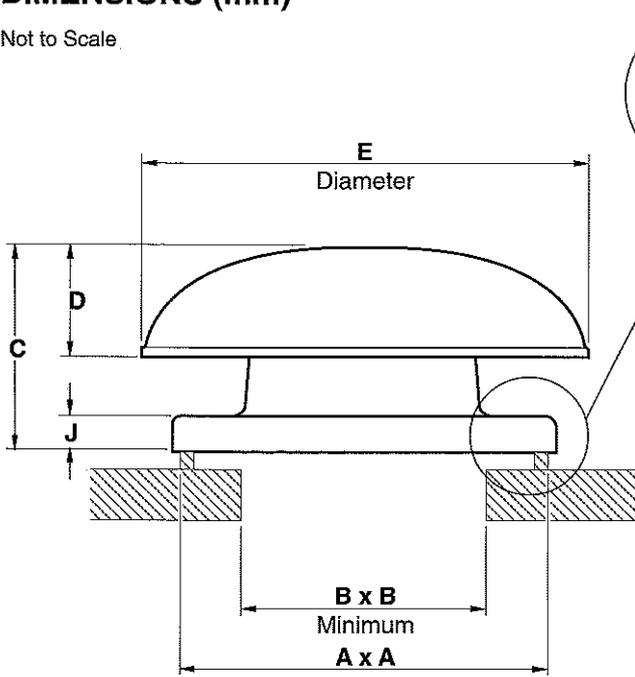
PERFORMANCE CURVES



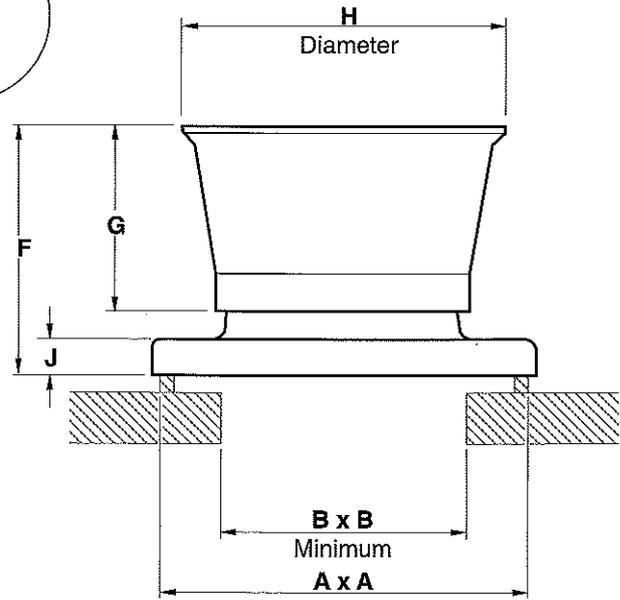
DIMENSIONS (mm)

Not to Scale.

ECONOCOWL



Supply Air or Horizontal Discharge Ventilator



Vertical Discharge Ventilator

MODEL	COWL SIZE	A	A'	B	C	D	E	F	G	H	J	APPROX. WGT(kg)
200 250	2	365	370	265	255	140	470	-	-	-	55	8
300 315	3	425	435	335	310	180	580	345	250	440	55	11
350 400	4	680	705	420	410	205	865	510	350	605	75	20
450 500	5	880	900	535	500	270	1095	595	430	760	75	34
560 630	6	960	980	700	580	285	1250	690	485	890	75	48
710 800	8	1070	1080	870	640	400	1535	600	390	1060 [□]	100	130

NOTE

The manufacturer reserves the right to make changes in specifications at any time without notice or obligation. Certified dimensions available on request.

Available from



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