



# **ALPHA & BETA INDUSTRIAL SERIES**

Industrial Axial Roof Ventilator

# ALPHA & BETA INDUSTRIAL SERIES



## Description

The Alpha & Beta Industrial Series of axial roof units are designed for a wide range of free intake and ducted exhaust systems. These durable and robust units feature adjustable pitch impellers which allows for optimum airflow and power efficiency. There are 6 sizes in each range extending from 500 to 1000mm diameter.

### Typical Applications

Exhausting clean air and a range of toxic, noxious and corrosive gases from a wide range of commercial and industrial applications.

### Features

- Wide choice of speeds available.
- Adjustable pitch impellers provide a wide range of performances.
- Impeller blades can be GRP, aluminium, nylon or anti-static to suit the application. GRP blades are standard.
- Shutters are standard on the RVLE range and an optional extra on the RDLE units. (See Additional Information).
- Can be used for free intake or ducted systems.
- Can be mounted at angles up to 30°.
- All standard motors are speed-controllable using variable speed drives.
- Multi-speed motors as well as motors to meet Ex d, Ex e, Ex nA or Ex tD Standards can be supplied.
- For applications prone to high prevailing winds refer to Additional Information.

### Construction

Pressed galvanised steel base; cowls and windbands are of plastic, fibreglass or galvanised steel.

Shutters are fitted as standard to the Beta series and are an optional extra on the Alpha series.

Impeller blades are GRP as standard with an option of aluminium, nylon or anti-static materials where required.

Metal components have a corrosion resistant finish.

### Motor

Type - squirrel cage induction motors.

Electricity supply - motors to suit a wide range of voltages and frequencies can be supplied.

Ball Bearing - sealed for life.

Speed-controllable using variable speed drives.

See pages O-3/4 for details on these motors.

Motors with 2-speed windings or to meet Ex d, Ex e, Ex nA or Ex tD Standards can be supplied.

### Internal Thermal Protection

Thermistors can be provided on all motors except where Standards prohibit their use.

### Testing

Airflow tests to BS848:Part 1, 1980

Noise tests to BS848:Part 2, 1985

### Smoke-spill Application

The Beta Industrial RSSL Series of smoke-spill fans has been fully tested to meet the air performance and high temperature test requirements of Standards AS/NZS1668.1:1998 and AS4429:1999.

### Discharge damper fail-open latching

An additional requirement of AS/NZS1668.1:1998 with respect to un-sprinklered buildings (300°C for 30mins) requires dampers to fail-open during smoke spill operation.

The fail-open discharge damper latches come in two forms; the first being a manual release type requiring manual closing after the fan has been run. The second design, an electro-mechanical type permits the shutter latch to release and close automatically after the fan stops.

For advice on smoke-spill wiring requirements refer to AS/NZS1668.1:1998.

See page C-8 for details of the smoke-spill range.

### Additional Information

Quick select envelope curves are shown on pages D-8/9. Accurate selections, including comprehensive Noise Data, can be obtained from your local Elta Fans office or by using the Intelligent Ventilation Product Selection Program. Refer to Elta Fans for performances at speeds other than shown.

When shutters are fitted ensure the roof unit is mounted with the shutter spindle pointing down the roof. When shutters are fitted to the Alpha series derate the performance by 15-20%.

Where prevailing winds are high we recommend the fitting of Maglocks®, see page J-8 for details. For capacities greater than shown for the Alpha & Beta Industrial series, refer to the HC and SS series on pages D-54/56.

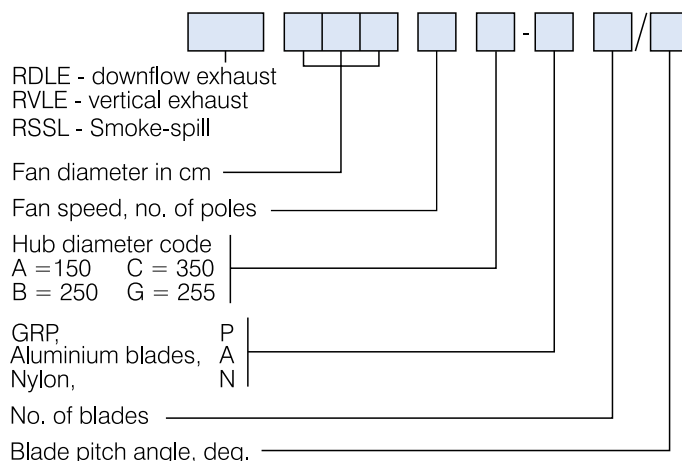
## Technical Data

Model RDLE.. RVLE.. RSSL..	Fan Speed rev/sec	Max. Motor kW	App. vol. RD.. m <sup>3</sup>	App. vol. RV.. m <sup>3</sup>
0504	24	1.5	0.83	0.72
0506	16	0.37		
0564	24	2.2	0.83	0.72
0566	16	0.75		
0634	24	4	1.60	1.30
0636	16	1.1		
0638	12	0.55	1.60	1.40
0714	24	5.5		
0716	16	2.2	3.10	1.80
0718	12	0.75		
0804	24	7.5	3.80	2.60
0806	16	4		
0808	12	1.5		
1004#	24	7.5		
1006	16	5.5		
1008	12	3		

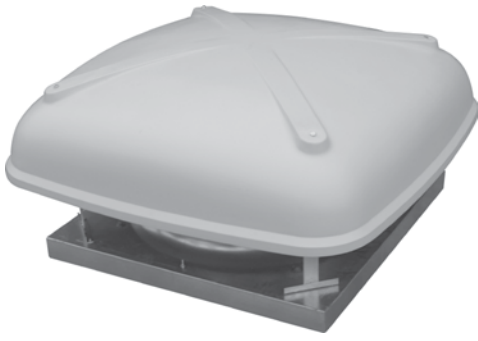
# Vertical discharge RVLE only.

Amperages for motors can be obtained at time of order.

## How To Order



# ALPHA INDUSTRIAL SERIES



## Suggested Specification

The axial roof ventilators shall be of the Alpha Industrial Series as designed and manufactured by Elta Fans.

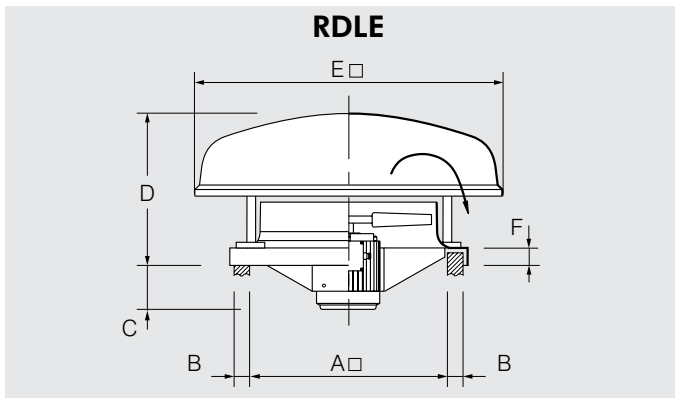
The axial impellers shall be adjustable pitch manufactured and supplied with blades of GRP, nylon, aluminium or anti-static material. (GRP is standard).

The unit base shall be of pressed galvanised steel and shall incorporate an entry cone to minimise entry losses to the fan. Cowls shall be of plastic or fibreglass.

The base may be powder-coated if required (optional extra).

All models shall incorporate fans fully tested to BS848:Part 1, 1980 for airflow and BS848:Part 2, 1985 for noise.

## Dimensions



Model	Dimensions, mm					
RDLE...	A	B	C max	D	E	F
0504/6	670	50	182	540	890	80
0564/6	670	50	182	540	890	80
0634/6/8	780	100	285	600	1180	80
0714/6/8	780	100	267	600	1180	80
0804/6/8	860	100	338	700	1395	80
1006/8	1080	100	338	776	1640	80

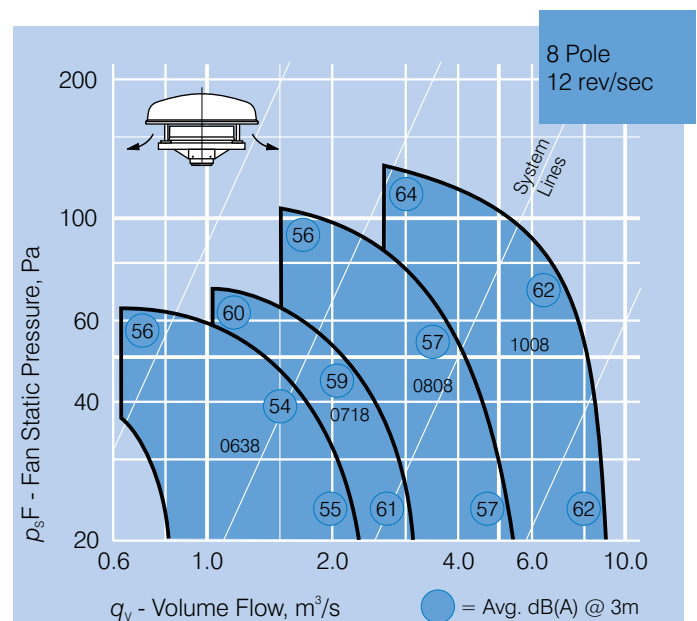
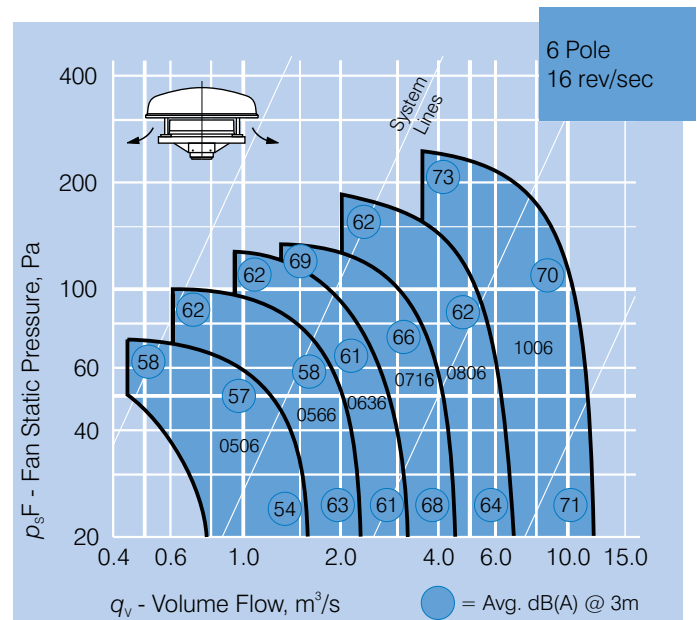
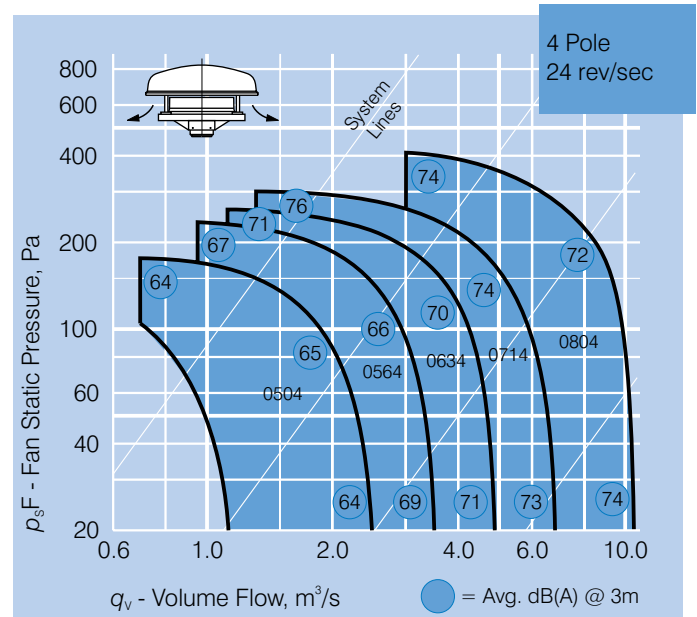
## Ancillary Equipment



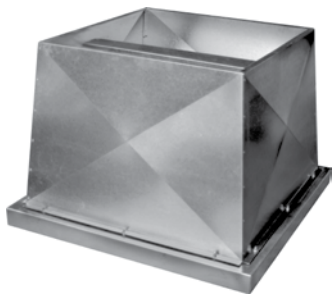
ABD - Butterfly shutters  
Ref. Section J-2



Variable speed drives  
Ref. Section M



# BETA INDUSTRIAL SERIES



## Suggested Specification

The axial roof ventilators shall be of the Beta Industrial Series as designed and manufactured by Elta Fans.

The axial impellers shall be adjustable pitch manufactured with blades of GRP, nylon, aluminium or anti-static material. (GRP is standard).

The unit base shall be of pressed galvanised steel and shall incorporate an entry cone to minimise entry losses to the fan.

Windbands shall be of fibreglass or galvanised steel.

The base may be powder-coated if required (optional extra).

All models shall incorporate fans fully tested to BS848:Part 1, 1980 for airflow and BS848:Part 2, 1985 for noise.

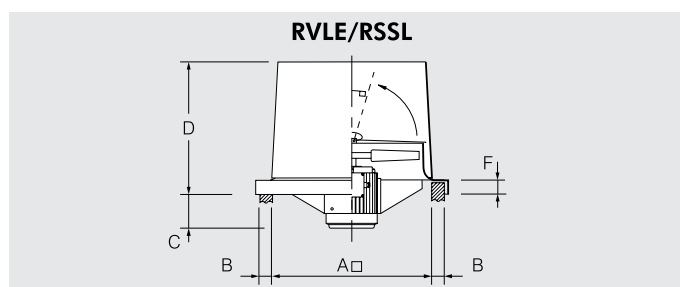
## Smoke-Spill Application

The axial roof ventilators shall be of the RSSL vertical discharge Beta Industrial Series as designed and manufactured by Elta Fans.

The windbands shall be constructed from galvanised steel. Impellers shall be adjustable pitch manufactured from aluminium and constructed to suit the elevated temperatures, with blades pinned as required by the manufacturer.

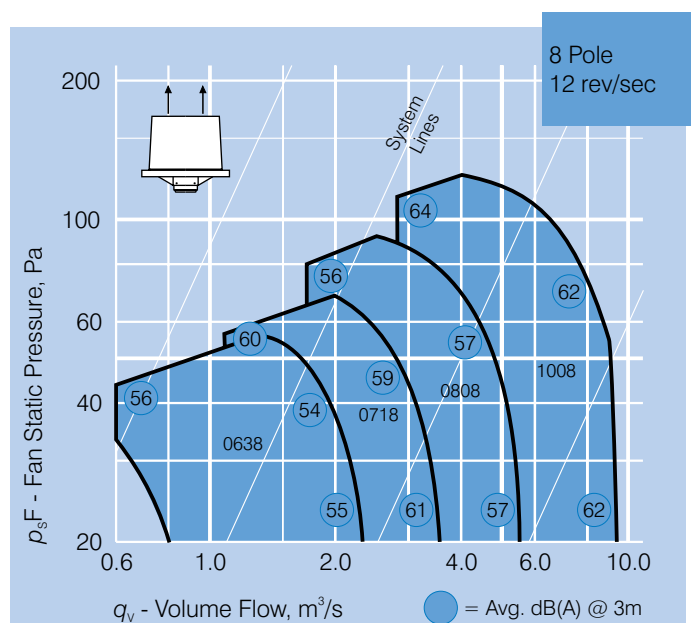
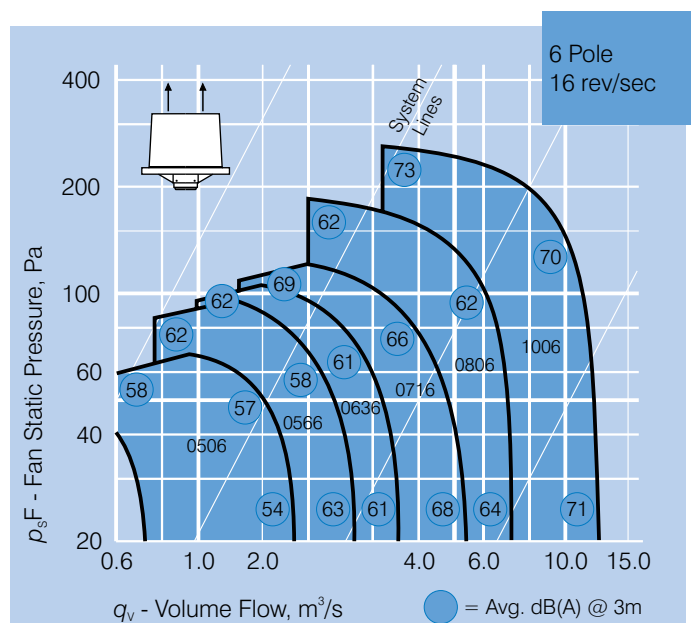
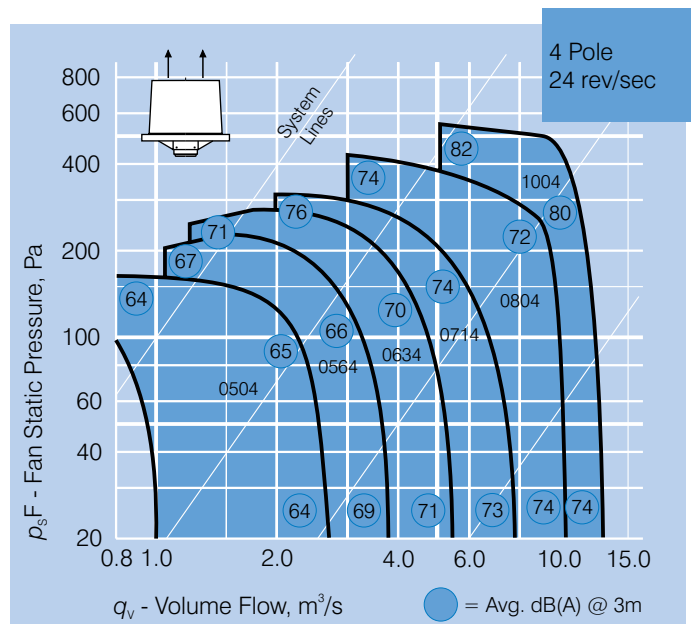
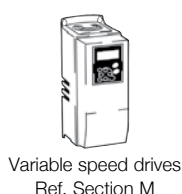
All fans shall be tested to meet the airflow, temperature and structural requirements of AS/NZS1668.1:1998 and AS/NZS 4429:1999.

## Dimensions



Model	Dimensions, mm				
RVLE...	A	B	C max	D	F
RSSL...	A	B	C max	D	F
0504/6	670	50	182	550	80
0564/6	670	50	182	550	80
0634/6/8	780	100	285	690	80
0714/6/8	780	100	267	690	80
0804/6/8	860	100	338	765	80
1004/6/8	1080	100	338	855	80

## Ancillary Equipment



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