



HIGH CAPACITY & SMOKE-SPILL SERIES

Vertical Exhaust Axial Roof Ventilators

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Description

The High Capacity (HC) and Smoke-Spill (SS) Series of vertical exhaust axial roof ventilators have been designed for use in commercial and industrial applications. They are built to handle clean air, toxic, noxious and explosive gases as well as handling air at elevated temperatures. There are 10 sizes in the series extending from 500 to 1800mm diameter.

Typical Applications

The HC model exhausts air from a wide range of commercial and industrial installations, ranging from clean air through to toxic, noxious and explosive gases. The SS model is designed for high temperature air exhaust applications.

Features

- Robust and durable galvanised steel construction.
- Adjustable pitch impellers can provide a wide range of performances.
- Available in a range of speeds to suit specific applications.
- Can be used for free air intake and ducted applications.
- Impellers can be GRP, aluminium, nylon or anti-static (max 1400mm dia) to suit specific applications.
- Designed to handle clean air, toxic, noxious and explosive gases as well as handling air at elevated temperatures such as for smoke-spill applications.
- All non-hazardous motors are speed-controllable using variable speed drives.
- Multi-speed motors, as well as motors to meet Ex d, Ex e, Ex nA and Ex tD Standards can be supplied.

Construction

Galvanised steel cowl. Shutters are fitted as standard. Impeller blades can be GRP (standard), aluminium, nylon or anti-static to suit the application.

Motor

Type - squirrel cage induction motors.

Electricity supply - 415V, 3-phase, 50Hz.

Ball Bearing - sealed for life.

All standard motors in HC range can be speed-controlled using variable speed drives.

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

See pages O-3/7 for details on these motors.

Internal Thermal Protection

Thermistors can be fitted on request. If fitted on Smoke Spill Series they must not operate under smoke-spill mode.

Testing

Airflow testing - 500-1000mm diameter - BS848:Part 1, 1980

1250-1800mm diameter - ISO5801:1997

Noise testing to BS848:Part 2, 1985

Smoke-spill Applications

The SS Series of smoke-spill fans has been fully tested to meet the air performance and high temperature 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.

Weights

Go to pages C-28/29 for full details.

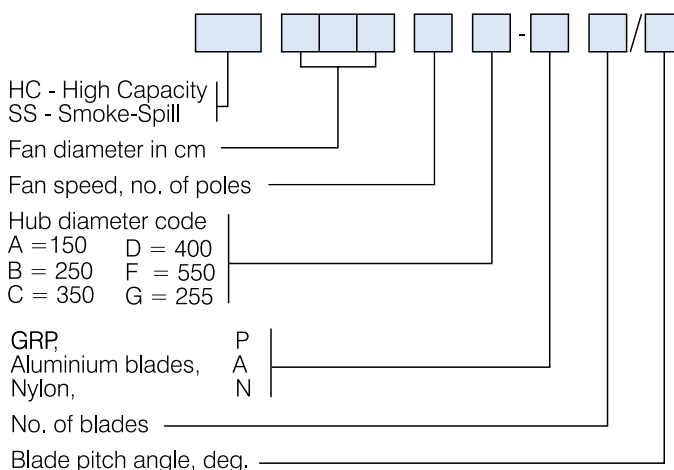
Additional Information

Quick select envelope curves are shown on page D-62. Accurate selections, including comprehensive Noise Data, can be obtained from your local Elta Fans office or from the Intelligent Ventilation Product Selection Program. Refer to Elta Fans for performances at speeds other than shown.

Where prevailing winds are high we recommend the fitting of Magloks®, see page J-8 for details.

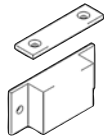
Designed for mounting on horizontal up-stands only.

How To Order



HIGH CAPACITY & SMOKE-SPILL SERIES

Ancillary Equipment



Maglok®
Ref. Section J-8



Variable speed drives
Ref. Section M

Suggested Specification

High Capacity Series

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

The axial impellers shall be adjustable pitch, driven by a direct drive motor and supplied with blades of GRP, aluminium, nylon or anti-static material; GRP is standard.

The cowl shall be of the vertical discharge type, incorporate butterfly shutters and manufactured from galvanised steel.

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

Smoke-Spill Series

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

The axial impellers shall be adjustable pitch, manufactured in aluminium and driven by a direct drive motor.

The cowl shall be of the vertical discharge type, incorporate butterfly shutters and manufactured from galvanised steel.

Motors shall be selected to suit the elevated temperature needs of smoke-spill applications.

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

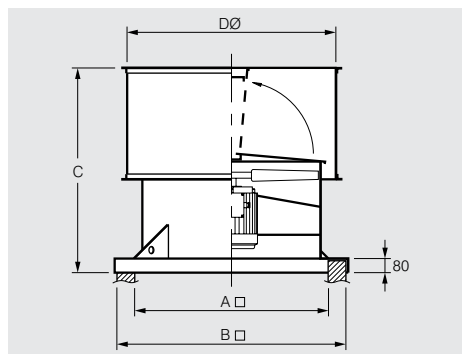
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Technical Data

Model	Fan		
Number	Speed	Max.	App.
HC./SS.	rev/sec	kW	vol. m³
0504	24	1.5	0.5
0564	24	2.2	0.6
0634	24	4.0	1.0
0636	16	1.1	
0714	24	5.5	1.2
0716	16	2.2	
0804	24	11.0	
0806	16	4.0	1.9
0808	12	1.5	
1004	24	30.0	
1006	16	15.0	2.6
1008	12	4.0	
1254	24	90.0	
1256	16	30.0	4.2
1258	12	11.0	
1406	16	45.0	5.8
1408	12	18.5	
1606	16	75.0	8.5
1608	12	37.0	
1806	16	125.0	11.8
1808	12	55.0	

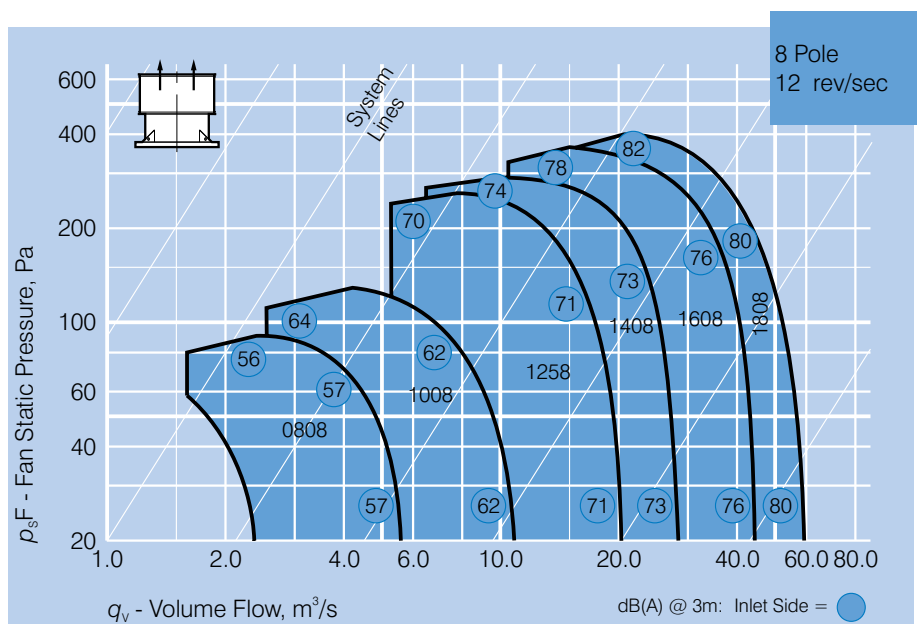
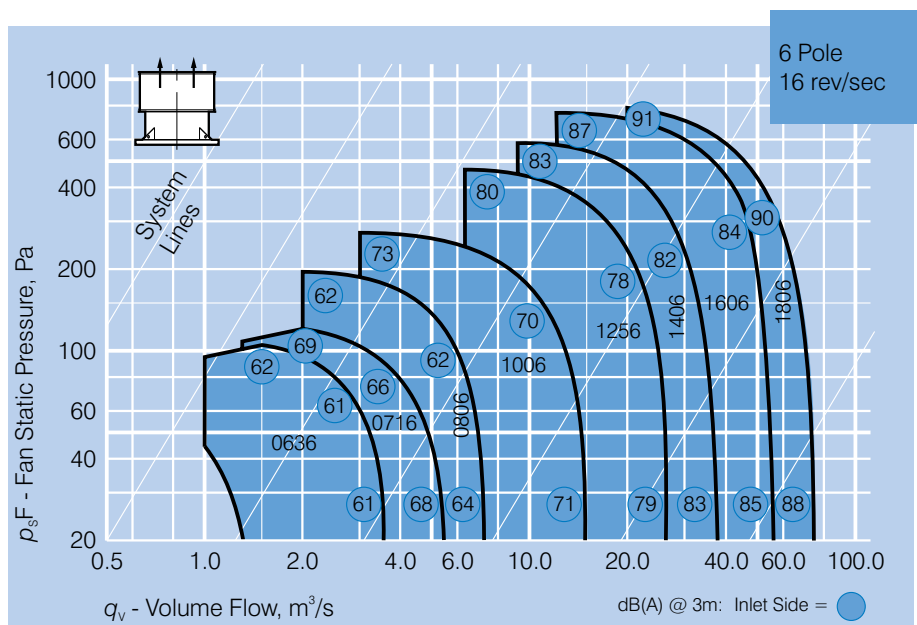
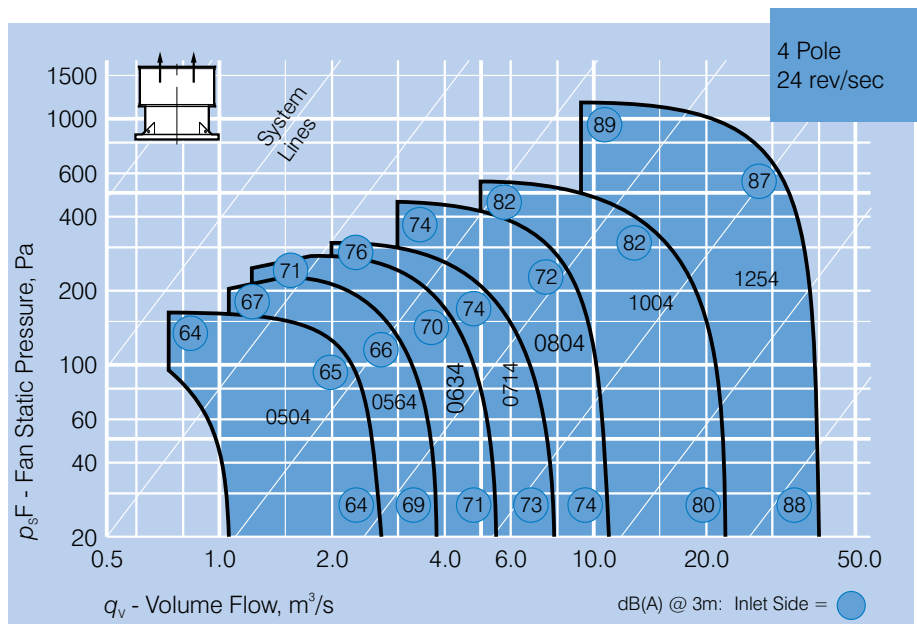
Amperages can be given at time of order.

Dimensions



Model	Dimensions, mm			
HC/SS	A	B	C*	D Ø
050..	570	770	680	675
056..	570	770	810	730
063..	780	980	830	800
071..	780	980	980	875
080..	900	1100	1230	975
100..	1080	1280	1330	1180
125..	1280	1480	1600	1430
140..	1480	1680	1730	1580
160..	1680	1880	2030	1785
180..	1880	2080	2130	1985

* The height dimension, C, is based upon the maximum motor as scheduled being fitted. If a motor with lower kW or 2-speed motor is fitted, this value could change.



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