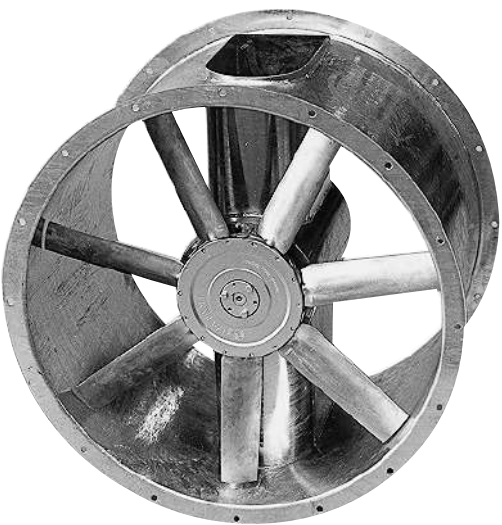


# ADJUSTABLE PITCH AXIAL FLOW FANS

B



## Description

The AP Series of axial flow fans is available in an extensive range of variants and Airflow performance. They can be manufactured to handle most conditions from ambient air to hot, corrosive or explosive gases and can be ordered in 13 sizes extending from 315 to 2000mm diameter.

## Typical Applications

Commercial and industrial supply or exhaust air applications such as shopping centres, office buildings and car parks, through to industrial processes and equipment ventilation.

## Smoke-spill Applications

The APS Series has been tested to meet the air performance and high temperature test requirements of Standards AS/NZS1668.1:1998 and AS4429:1999; both tests are mandatory.

For advice on smoke-spill wiring requirements refer to the above Standards.

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

## Hazardous Fume Applications

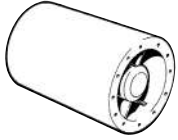
AP Series fans can be made to accommodate requirements for corrosive fume and explosion risk applications. Special coatings and alternative materials, such as stainless steel, are available as well as increased safety motors and anti-static impellers. Our sales engineers are able to assist with requirements, which must be specified at time of quotation.

## Features

- Standard casings are made of durable hot-dipped galvanised steel or pre-galvanised steel.
- Casings with special coatings such as epoxy paint can be supplied.
- Casings of stainless steel or other materials can be supplied.
- Ability to select a fan with a specific impeller pitch angle ensures selections can be made accurately to the specification.
- All impellers are adjustable pitch aerofoil section.
- Impeller materials range from GRP (standard), aluminium, nylon and anti-static.
- Casing designs for direct-drive, belt-drive, smoke-spill and bifurcated applications are available.
- Can be supplied with motors to meet Ex e, Ex d, Ex nA and Ex tD Standards.
- Available in the following variants:
  - AP Series - direct-drive
  - APV Series - direct-drive vertical mounted
  - APS Series - direct-drive smoke-spill
  - APB Series - belt-drive
  - BFA Series - bifurcated, direct-drive

# ADJUSTABLE PITCH AXIAL FLOW FANS

## Ancillary Equipment



C..P - Circular silencers  
Ref. Section H-8/11



Vibration isolators  
Ref. Section I-1



MF - Matching flange  
Ref. Section J-4



F - Mounting foot  
Ref. Section J-6



IC - Inlet cone  
Ref. Section J-7



FG - Finger guards  
Ref. Section J-9



Inverter  
Ref. Section M

### Construction

Casings are hot-dip galvanised mild steel, or pre-galvanised steel.

Impellers can be GRP (standard) or aluminium. Anti-static blades for hazardous applications up to 1400mm diameter are also available.

### Motors

Type - squirrel cage, induction motors to suit virtually any application.

Electricity supply - Three-phase to suit a wide range of voltages and frequencies.

Bearings - ball

See pages O-3/7 for details on motors

Motors to meet Ex e, Ex d, Ex nA and Ex tD Standards can be fitted.

### Internal thermal Protection

Can be provided as an optional extra.

### Testing

Airflow - 315 - 1000mm diameter - BS848:Part 1, 1980

1250 - 2000mm diameter - ISO5801:1997

Noise tests - BS848:Part 2, 1985

### Wiring Diagram

See pages N-6/7, diagrams DD 1, 2, 3, 6, 7, 9.

### Weights

See pages C-28/29 for details of weights

## Dimensions

See pages C-26/27 for details

## How To Order

The quick selection curves on the next 2 pages are designed to assist users to determine the fan diameter, speed, approximate noise level and dimensions of the fan to meet the specified duty. Refer to section C for more selection information details.

**Detail including the number of blades, power absorbed and noise levels is available from the Elta Fans Product Selection Program.**

B

# AXIAL FLOW FANS QUICK SELECTION GRAPHS

Pages C-2/8 provide detailed information on these products. An example of how to use the curves is shown on page C-10/11.

The dimensions for all fans are on pages C-26/27. Weights can be determined from details on pages C-28/29.

## Suggested Specification

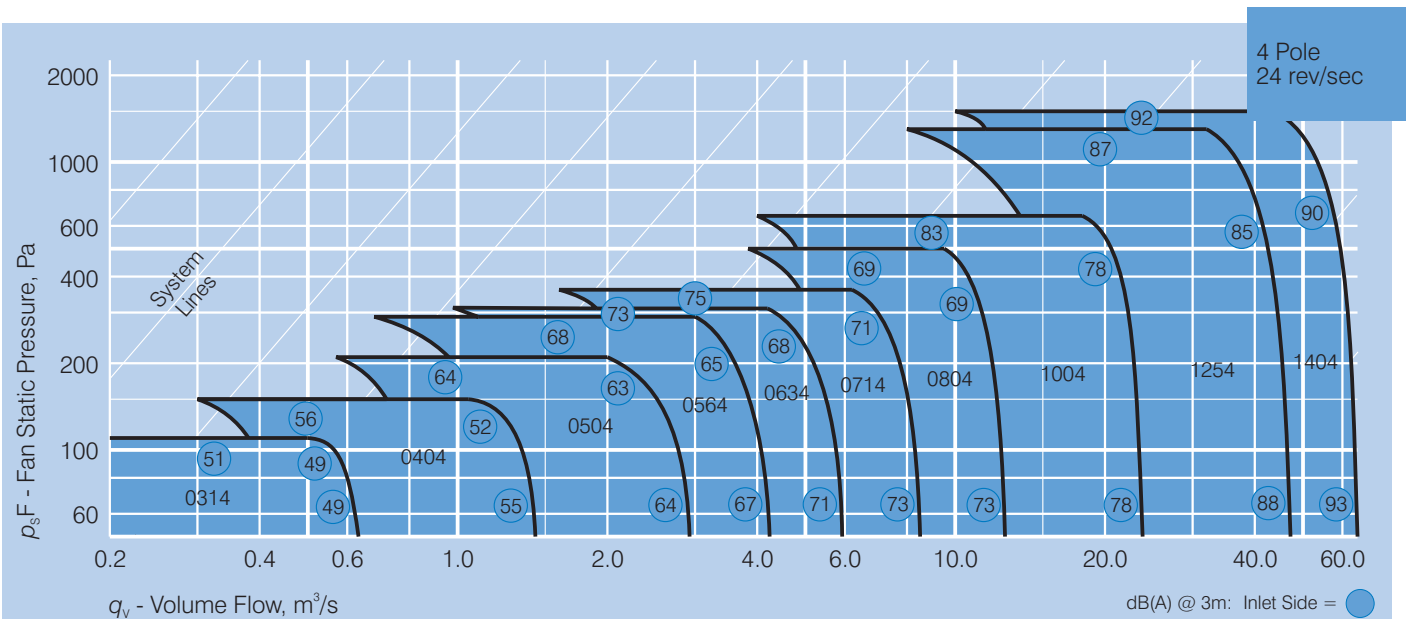
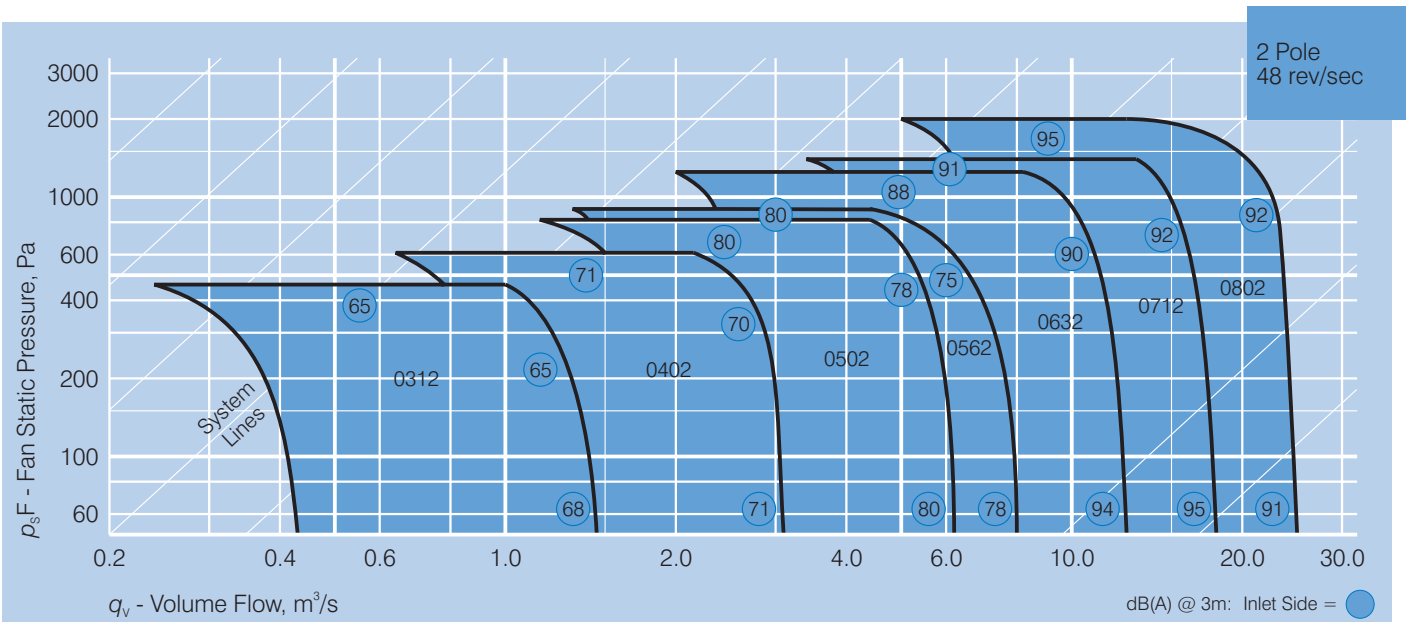
The axial flow fans shall be of the AP/APV/APS/APB/BFA series as designed and manufactured by Elta Fans and be of the model numbers shown on the schedule/drawings.

Fan casings shall be of hot-dip galvanised steel or pre-galvanised steel. Impellers shall be of GRP (unless nominated otherwise), adjustable pitch and aerofoil section.

All models shall be fully tested for Airflow to BS848:Part 1, 1980 or ISO5801:1997 and noise to BS848:Part 2, 1985.

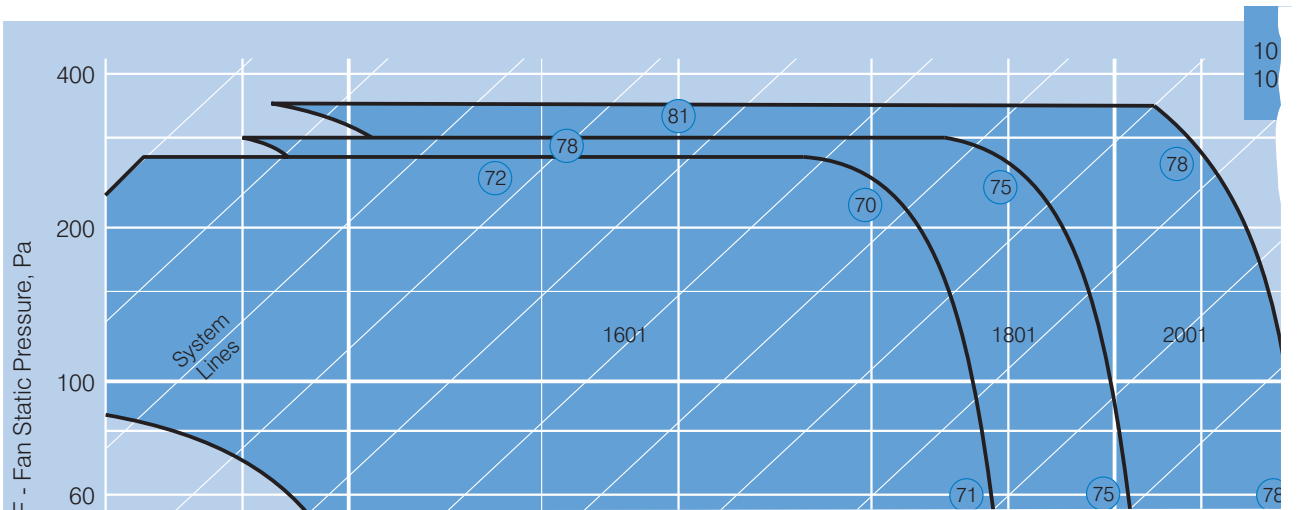
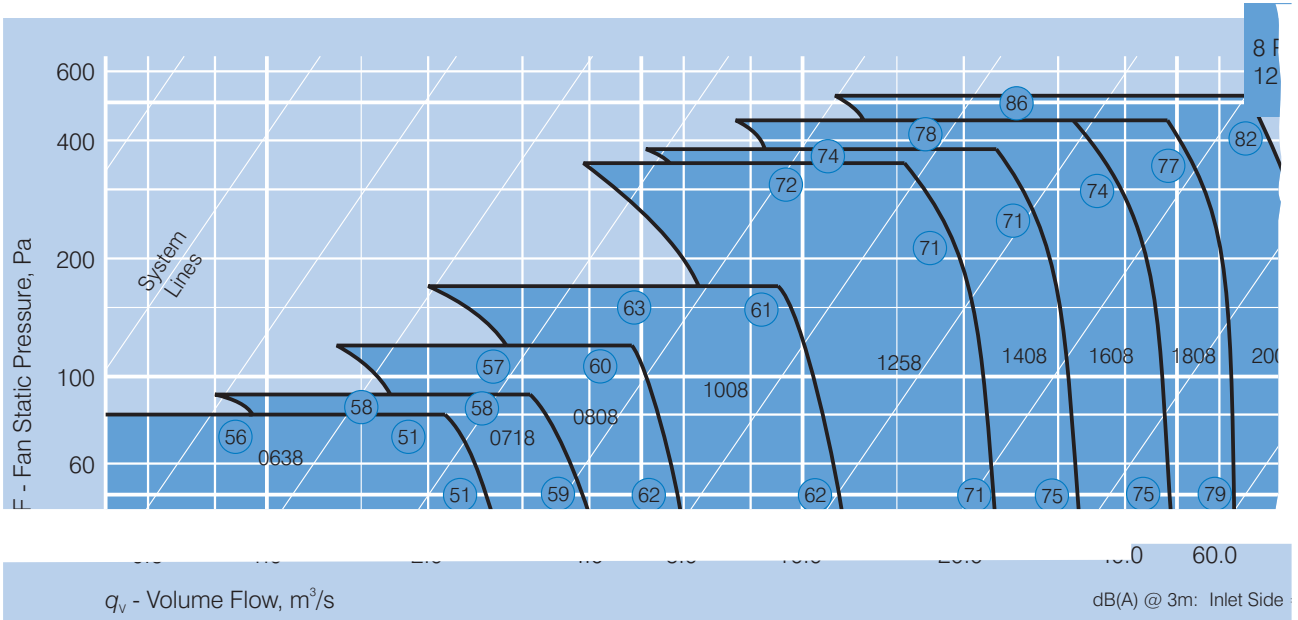
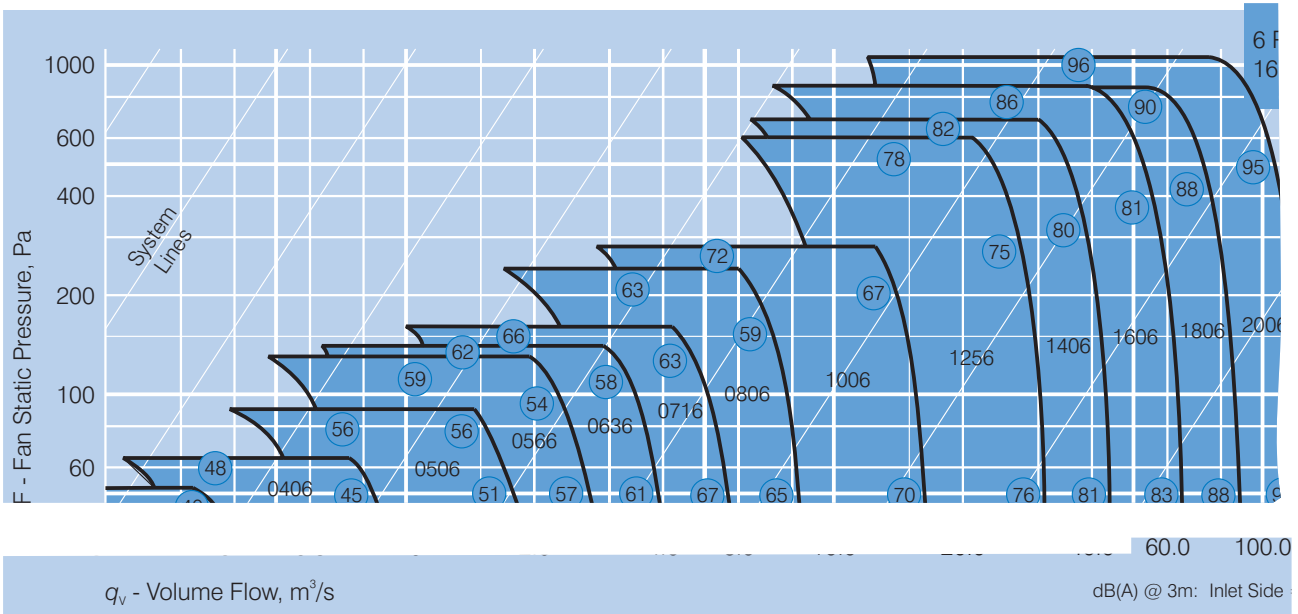
### Model Numbers

- AP - direct-driven; 315 to 2000mm diameter
- APV - direct-driven; 315 to 2000mm diameter
- APS - direct-driven; 315 to 2000mm diameter
- APB - belt driven; 315 to 2000mm diameter
- BFA - bifurcated; 400 to 1250mm diameter



# AXIAL FLOW FANS QUICK SELECTION GRAPHS

B



# PREFABRICATED ASSEMBLIES FOR AP/APS AXIAL FANS



## Description

A structurally certified Prefabricated modular assembly that includes a Elta Fans duct mounted Axial Flow Fan ranging from 560mm to 2000mm diameter. The modular assembly also includes duct transitions, flexible connectors and base frame which incorporates a mounting position for VSD if required.

They can simplify installation, improve on-site productivity and save engineering, project drafting and labour costs.

## Features

- Structurally certified modular design.
- Certified base frame is manufactured from durable hot-dip galvanised PFC (Parallel Flange Channel).
- Revit files with clash detection available for all models.
- Transitions designed to optimise system performance are available as nude or with 50mm, 75mm and 100mm noise suppressing material.
- Flexible connectors available for standard and high temperature applications.
- Suitable for both floor or hung installations.
- Fitted with certified lifting lugs.
- Pre-wiring of Variable Speed Drives using EMC glands and screened cable is available.

## Typical Applications

Commercial and industrial supply or exhaust air applications such as shopping centres, office buildings, hotels and car parks.

Can be manufactured to handle most conditions from ambient air to hot, toxic and noxious gases.

## Construction

Transitions are manufactured from galvanised sheet outer, with perforated foil inner sheet for diameters up to 710mm, and perforated galvanised inner sheet for diameters 800mm and above. All sizes are available with noise suppressing material. Standard or high temperature flexible connections are fitted to both inlet and outlet transitions.

Certified base frame is manufactured from hot-dip galvanised PFC (Parallel Flange Channel). Fan is as per AP range.

## Certification

### Modular assembly

Structurally certified to meet Australian Standards:

AS3990-1993 Mechanical Equipment - Steelwork.

AS1170.0:2002 - Structural Design Actions

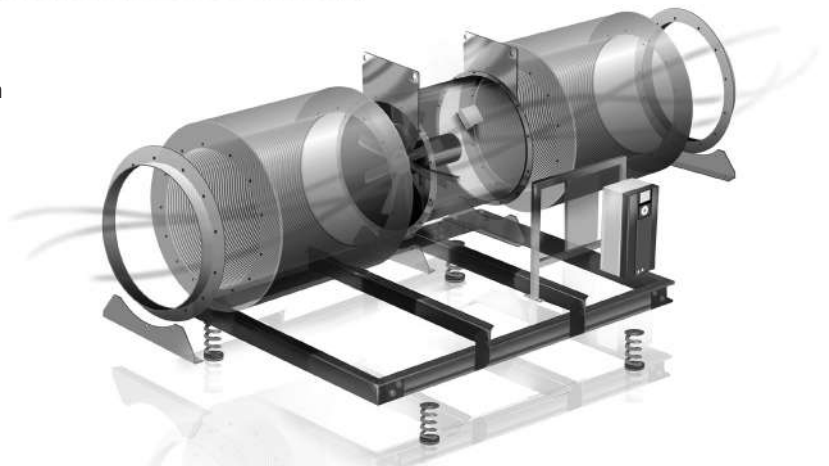
AS1170.2:2002 - Structural Design Actions - Wind Actions

### Lifting lugs

Structurally certified to meet Australian Standards:

AS3990-1993 Mechanical Equipment - Steelwork

AS4991:2004 - Lifting devices



## Suggested Specification

The Prefabricated assembly shall comprise of a duct mounted axial flow fan, transitions and flexible connectors on a structurally certified base frame as designed and manufactured by Elta Fans.

Fan casings shall be of galvanised steel. Impellers shall be of GRP (unless nominated otherwise), adjustable pitch and aerofoil section.

Transitions shall be of galvanised sheet outer, with perforated foil inner sheet for diameters up to 710mm and perforated galvanised inner sheet for diameters 800mm and above.

All sizes shall be available with noise suppressing material. Standard or high temperature flexible connections shall be fitted to both inlet and outlet of transitions.

The base frame shall be manufactured from hot-dip galvanised PFC (Parallel Flange Channel).

The assembly will be suitable for either floor or hung installations. Additionally it shall incorporate a VSD mounting frame if required and can be matched with anti-vibration spring mounts that meets the requirements of the acoustic specification.

All axial flow fan models shall be fully tested for airflow to BS848:Part 1, 1980 or ISO5801:1997 and noise to BS848:Part 2, 1985.

The modular assembly shall be certified to meet Australian Standards:

AS3990-1993 Mechanical Equipment - Steelwork.

AS1170.0:2002 - Structural Design Actions.

AS1170.2:2002 - Structural Design Actions - Wind Actions

The lifting lugs shall be certified to meet Australian Standards:

AS3990-1993 Mechanical Equipment - Steelwork.

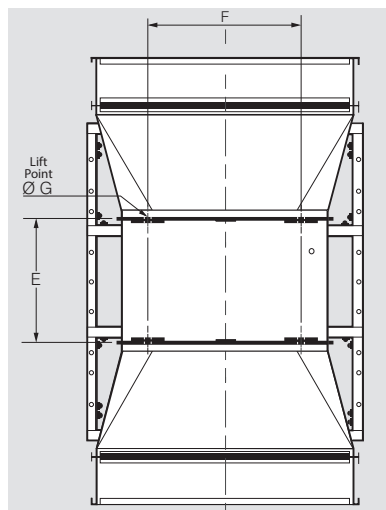
AS4991:2004 - Lifting devices.

## How To Order

Contact your local Elta Fans office for information on How To Order.

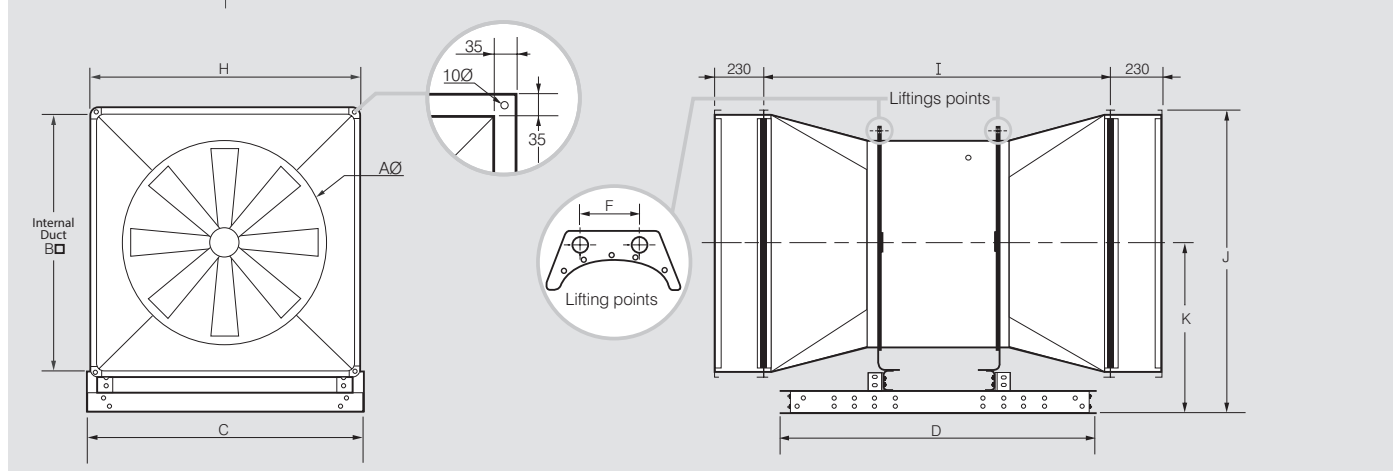
# PREFABRICATED ASSEMBLIES FOR AP/APS AXIAL FANS

## Dimensions



Series Dimensions, mm

...	AØ	Bp	C	D	E	F	GØ	H	I	J	K
<b>056</b>	560	700	800	930	300-600	399	30	770	930-1230	890	505
<b>063</b>	630	800	900	980	300-800	446	30	870	1060-1560	985	550
<b>071</b>	710	900	1000	1200	400-800	372	40	970	1260-1660	1135	650
<b>080</b>	800	1000	1100	1200	400-800	421	40	1070	1300-1700	1235	700
<b>100</b>	1000	1250	1350	1550	400-1000	538	40	1320	1530-2130	1490	830
<b>125</b>	1250	1550	1650	1780	400-1000	838	50	1620	1750-2350	1840	1030
<b>140</b>	1400	1750	1850	1980	400-1000	939	50	1820	1980-2580	1975	1063
<b>160</b>	1600	2000	2100	2230	400-1000	936	50	2070	2200-2800	2235	1200
<b>180</b>	1800	2250	2350	2450	400-1000	1023	60	2320	2430-3030	2510	1350
<b>200</b>	2000	2500	2600	2900	400-1000	1140	60	2570	2660-3260	2735	1450



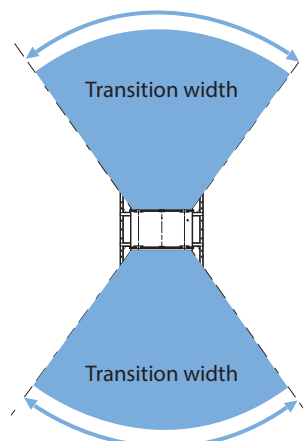
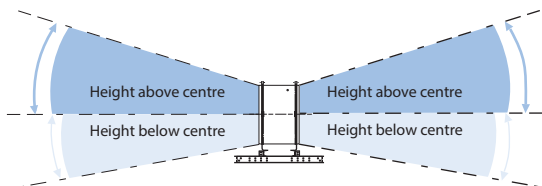
## Transition Dimensions & Internal Wall Material

To suit a range of applications, the prefabricated assembly's square to round transitions are available as nude and with noise suppressing material in 50, 75 and 100mm thickness configurations, covered with foil or perforated steel.

Fan Diameter	560	630	710	800	1000	1250	1400	1600	1800	2000
Transition (Internal, from flange)	700	800	900	1000	1250	1550	1750	2000	2250	2500
Noise Suppressing Material Lining	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel	- Perforated Steel
	- Foil	- Foil	- Foil							

## Fitment Of Your Transitions & VSD

Transitions and flexible connections that have different heights and widths to those offered above can be free issued to Elta Fans and mounted to the required prefabricated assembly. Dimensional limitations on transitions, ie height above and below fan's centre, and transition width (see illustrations below and right), will be based on symmetry, total assembly weight and dimension restrictions on fan selection. VSD's free issued to Elta Fans can be fitted and wired to fan. Please contact Elta Fans for more detailed information regarding dimensional limitations and VSD fitment.





## Elta Fans Asia

For information about your nearest office, visit us online:

Web [www.eltafans.asia](http://www.eltafans.asia)

Email [info@eltafans.asia](mailto:info@eltafans.asia)

At Elta Fans we are dedicated to the continuous research and development of all our products. To provide you with the very best in air movement and ventilation, products supplied may differ from those illustrated and described in this publication. Confirmation of dimensions and data can be supplied on request from our team.