



# 60Hz VENTILATION SOLUTIONS



NUAIRE. FOR THE COMPLETE VENTILATION SOLUTION





# WITH A RECORD OF QUALITY WHICH IS THE ENVY OF THE INDUSTRY...

...Nuaire is a British company with a long history of innovation in a field of ventilation and air movement solutions, and its products are known across the world for their superb quality and efficiency.

Founded in 1966, Nuaire has a long and much-admired heritage in developing and manufacturing ventilation products. The company's products are renowned worldwide, likewise their unrivalled customer service, and it is this combination which has ensured that Nuaire's products have been sold into more than 60 countries around the world, including in the Middle East, Europe, the USA and Asia.





# HIGH TEMPERATURE AXIAL RANGE

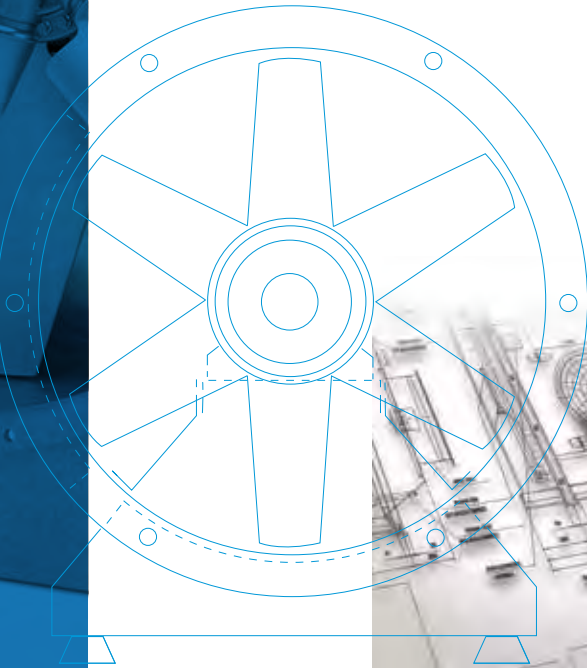
HIGH TEMPERATURE AXIAL (AX), SMOKE CONTRA AXIAL (AXC), SMOKE RUN AND STANDBY AXIAL (AXT)

Nuair has a comprehensive range of high performance axial fans from **250mm to 2000mm** diameter that will suit every application, ensuring maximum efficiency and saving costly energy. The range has a **duty range of up to 120 m<sup>3</sup>/s**.



## KEY BENEFITS:

- ▶ EN12101-3:2002 – INDEPENDENTLY TESTED
- ▶ INTEGRAL CASE MOUNTED GUIDE VANES
- ▶ CONFIGURABLE SOLUTION AVAILABLE IN LARGE RANGE OF SIZES AND DUTY POINTS
- ▶ AIR PERFORMANCE IN ACCORDANCE TO ISO 5801
- ▶ TESTED IN ACCORDANCE WITH AMCA 300 AND ISO 13347





## CONSULTANTS SPECIFICATION



### CASING

The complete units are manufactured from pre-galvanised mild steel to BS EN10142 as standard. Hot dip galvanised steel and paint finishes are available. Optional integral case mounted guide vanes for optimised efficiency and reduced operating costs.



### MOTOR

Motors are direct drive TENV/TEAO class H insulated and are prewired to an external terminal box fitted with a weatherproof flexible conduit to IP55. Motors are available as single speed or 2 speed; 2, 4, 6, or 8 pole and up to IE3 efficiency. Motor bearings are sealed for life up to 132 frames and re-greaseable for 160 frame and above.



### CERTIFICATION AND OPERATING TEMPERATURE

Units are tested to BS EN12101-3, suitable for standard day to day temperatures of up to 60°C and for one off operation at either 300°C for two hours or 400°C for two hours.



### IMPELLER

Aluminium (300°C/2) and steel (400°C/2) aerofoil impellers available.



### INSTALLATION

The units are suitable for internal or external installation at any angle.



### PERFORMANCE

The units are available in a variety of airflows up to 120m<sup>3</sup>/s and up to 2000mm diameter.

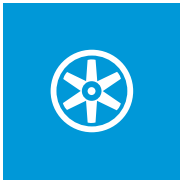


### ANCILLARIES

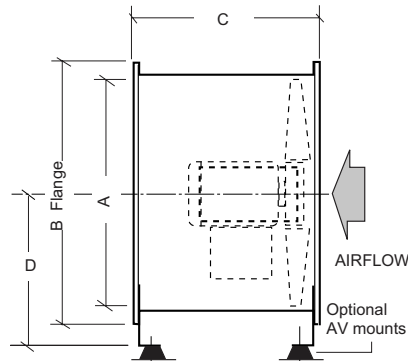
Each unit is available with a range of ancillaries including:

- Mounting brackets
- Matching flanges
- Flexible connections
- Anti-vibration mounts
- All necessary components for ease of installation.

All additional ancillaries are certified to BS EN12101-3.



# AXIAL (AX) - SINGLE STAGE



**CODING** AXC100X-XX

AX 100 X - X X  
 | | | | |  
 1 2 3 4 5

**SAMPLE CODING**

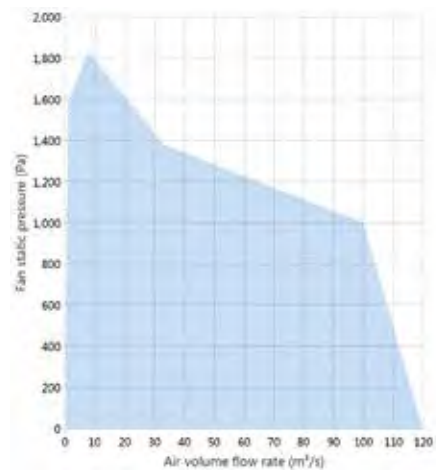
1. Axial fan
2. Size of casing in CM
3. Impeller specification reference
4. Motor speed in poles
5. Operating temperature reference

Contact Nuair for Fan Selector to help in selecting the right unit for your project.

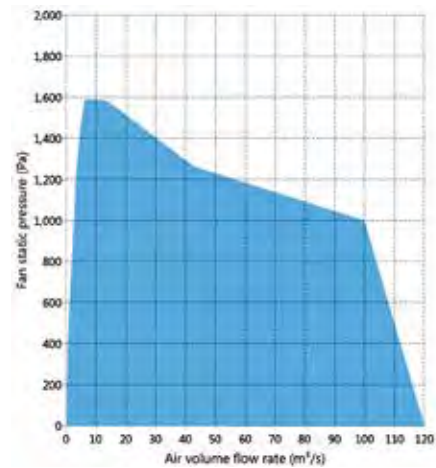
**DIMENSIONS (MM)**

MODEL	A	B	C	D
AX31	315	400	365	210
AX35	350	430	380	240
AX40	400	490	440	270
AX45	450	540	450	300
AX45	450	540	600	300
AX50	500	608	465	340
AX50	500	608	615	340
AX56	560	670	440	370
AX56	560	670	615	370
AX63	630	740	480	430
AX63	630	740	600	430
AX63	630	740	800	430
AX71	710	814	455	470
AX71	710	814	700	470
AX80	800	910	440	540
AX80	800	910	840	540
AX90	900	1016	740	600
AX100	1000	1128	740	670
AX100	1000	1128	850	670
AX112	1120	1240	730	750
AX112	1120	1240	865	750
AX112	1120	1240	1010	750
AX125	1250	1365	865	830
AX125	1250	1365	101	830

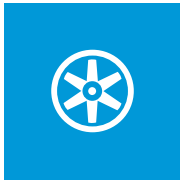
**300**



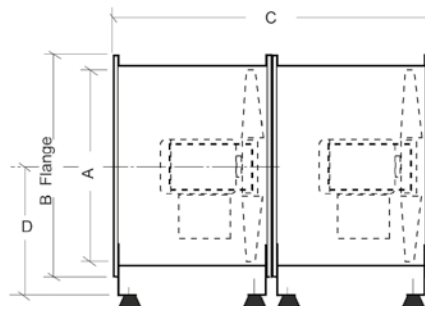
**400**



Unit sizes 1400mm and above contact Nuair for details.



# CONTRA AXIAL (AXC) - TWO STAGE



**CODING** AXC100X-XX

AX 100 X - X X  
 | | | | |  
 1 2 3 4 5

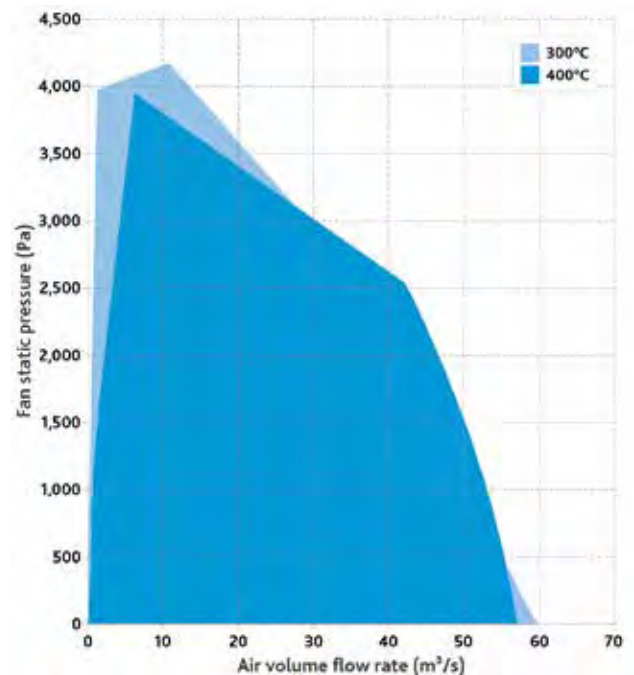
**SAMPLE CODING**

1. Contra rotating axial fan
2. Size of casing in CM
3. Impeller specification reference
4. Motor speed in poles
5. Operating temperature reference

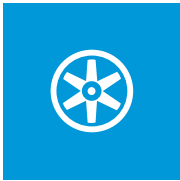
Contact Nuair for Fan Selector to help in selecting the right unit for your project.

## DIMENSIONS (MM)

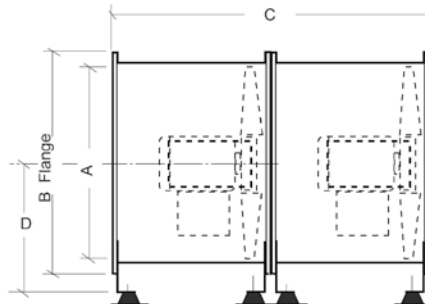
MODEL	A	B	C	D
AXC31	315	400	730	210
AXC35	350	430	760	240
AXC40	400	490	880	270
AXC45	450	540	900	300
AXC50	500	608	930	340
AXC50	500	608	1230	340
AXC56	560	670	880	370
AXC56	560	670	1230	370
AXC63	630	740	960	430
AXC63	630	740	1200	430
AXC71	710	814	910	470
AXC71	710	814	1400	470
AXC80	800	910	880	540
AXC80	800	910	1680	540
AXC90	900	1016	1480	600
AXC100	1000	1128	1480	670
AXC100	1000	1128	1700	670
AXC112	1120	1240	1460	750
AXC112	1120	1240	1730	750
AXC112	1120	1240	2020	750
AXC125	1250	1365	1730	830
AXC125	1250	1365	2020	830



For unit sizes 1400mm and above contact Nuair for details.



# HIGH TEMPERATURE AXIAL RUN AND STANDBY (AXT) - TWO STAGE



**CODING** AXC100X-XX

AX 100 X - X X  
 | | | | |  
 1 2 3 4 5

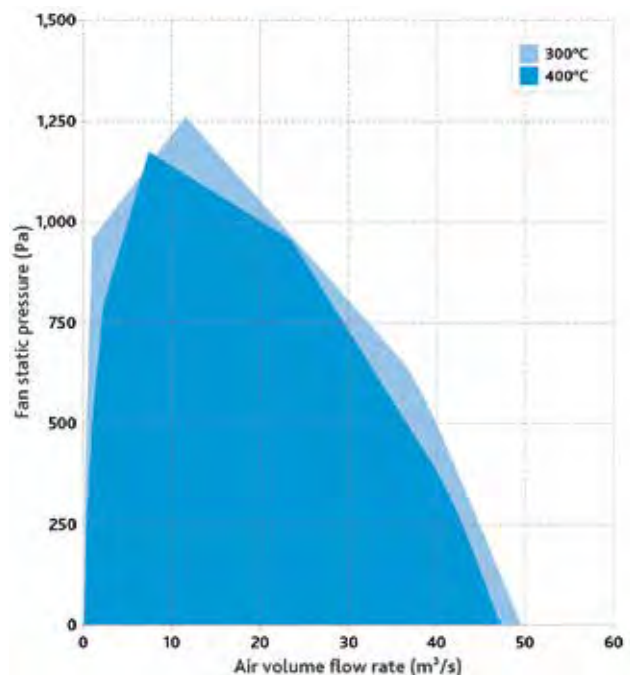
**SAMPLE CODING**

1. Run and standby axial fan
2. Size of casing in CM
3. Impeller specification reference
4. Motor speed in poles
5. Operating temperature reference

Contact Nuaire for Fan Selector to help in selecting the right unit for your project.

**DIMENSIONS (MM)**

MODEL	A	B	C	D
AXT31	315	400	730	210
AXT35	350	430	760	240
AXT40	400	490	880	270
AXT45	450	540	900	300
AXT50	500	608	930	340
AXT50	500	608	1230	340
AXT56	560	670	880	370
AXT56	560	670	1230	370
AXT63	630	740	960	430
AXT63	630	740	1200	430
AXT71	710	814	910	470
AXT71	710	814	1400	470
AXT80	800	910	880	540
AXT80	800	910	1680	540
AXT90	900	1016	1480	600
AXT100	1000	1128	1480	670
AXT100	1000	1128	1700	670
AXT112	1120	1240	1460	750
AXT112	1120	1240	1730	750
AXT112	1120	1240	2020	750
AXT125	1250	1365	1730	830
AXT125	1250	1365	2020	830

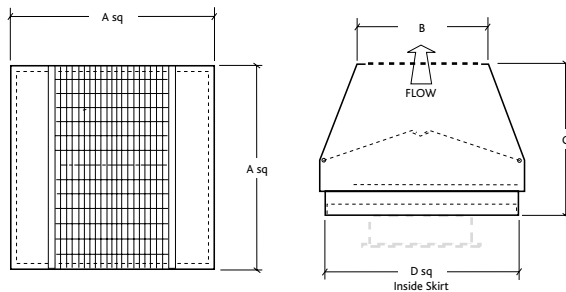
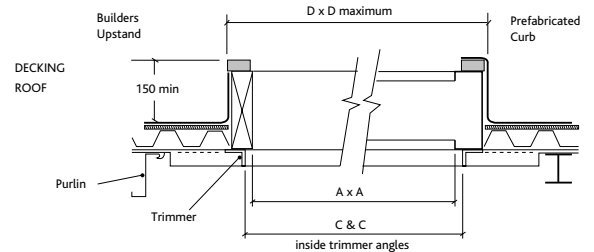
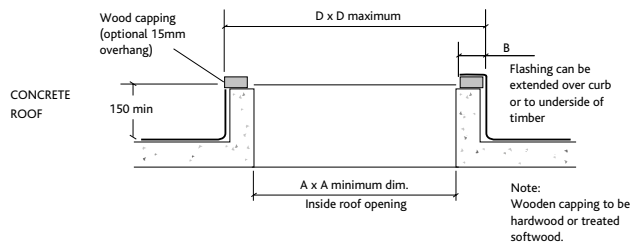
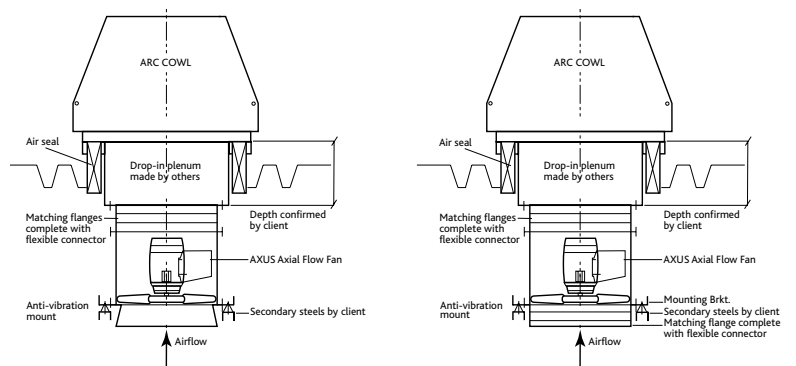


For unit sizes 1400mm and above contact Nuaire for details.



# ARC - AXUS ROOF COWL

The Axus Roof Cowl (ARC) is completely weather proof and suitable for high temperature operations. The casing is manufactured from self finish aluminium alloy, and incorporates air operated shutters. In the closed position, the shutters seal ensuring efficient shedding of rain. The units discharge has a safety mesh designed to safely blow off at high temperatures, held to the unit via a retaining strap. Non rusting fixings are used throughout.



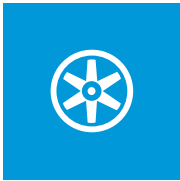
## DIMENSIONS(MM) AND WEIGHTS (KGS)

CODE	A	B	C	D	WEIGHT
ARC56	845	570	535	786	22
ARC71	1100	770	760	1045	37
ARC100	1295	1000	880	1234	79
ARC125	1795	1300	1160	1738	213

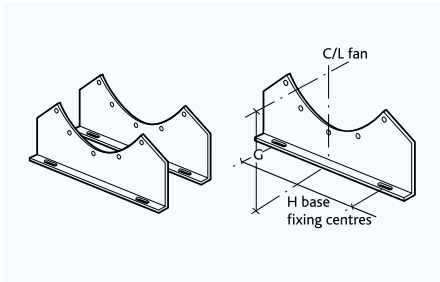
- Roof cowl suitable for high temperature self finish aluzinc not suitable for 'Atex' hazardous zone applications
- Roof cowl high temperature self finish aluzinc

Nuaire offer a variety of roof cowls, for more information contact Nuaire.





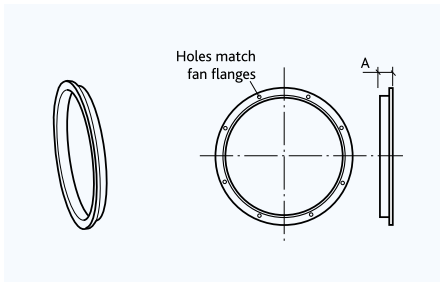
# AXUS ANCILLARIES



## MOUNTING BRACKETS

The AXUS mounting brackets are manufactured from heavy gauge galvanised steel and are supplied in pairs. For dimensional information, please contact Nuair.

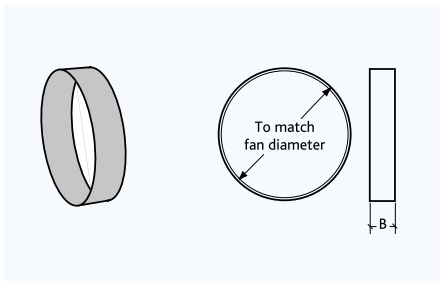
**Typical Code - CMB100** (100 = Fan diameter in cm).



## MATCHING FLANGE (SINGLE)

Manufactured from galvanised steel. Matching flanges are supplied individually. For dimensional information, please contact Nuair.

**Typical Code: CMF100** (100 = fan diameter in cm).

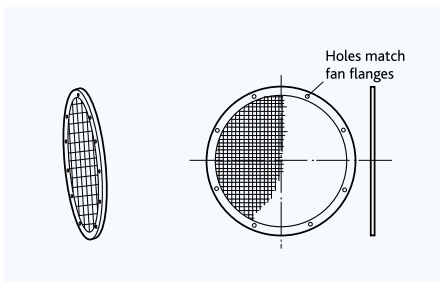


## FLEXIBLE CONNECTOR (SINGLE)

Circular without flanges. Flexible duct material is flameproof and resistant to heat up to 132°C/400°C, chemicals, ozone, oil and grease. The material is airtight, waterproof and tested to BS476 Part 7. (Supplied complete with fixing straps). For dimensional information, please contact Nuair.

**Typical Code: CFC100** (100 = fan diameter in cm) - 132°C.

**CFCH100** (100 = fan diameter in cm) - 400°C.

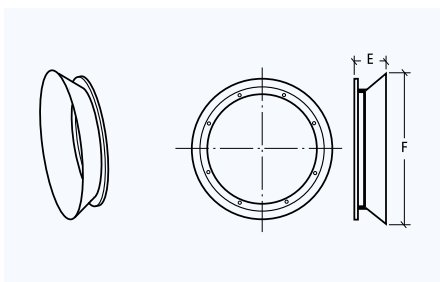


## GUARD

Manufactured from heavy gauge galvanised steel and acid zinc plated steel mesh. Standard Accessory Losses (k). Flat type • Finger guard 0.4. For dimensional information, please contact Nuair.

**Typical Code: CGD100** (100 = fan diameter in cm).

Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



## INLET CONE

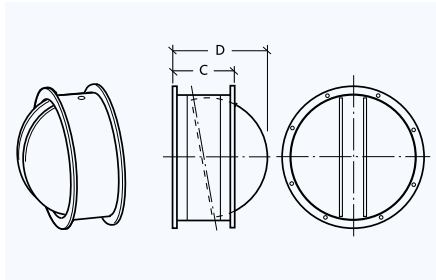
Manufactured in heavy gauge galvanised steel with a single bolted flange. Standard Accessory Losses (k). Low loss • inlet cone 0.38. For dimensional information, please contact Nuair.

**Typical Code: CIC100** (100 = fan diameter in cm).

Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



## AXUS ANCILLARIES

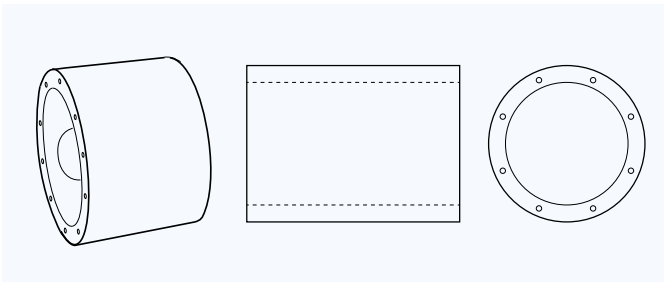


### BACKDRAFT DAMPER (SINGLE)

Gravity operated backdraught damper, manufactured from heavy gauge galvanised steel with a pair of bolted flanges. Standard Accessory Losses (k) (Air stream operated) 0.4. For dimensional information, please contact Nuair.

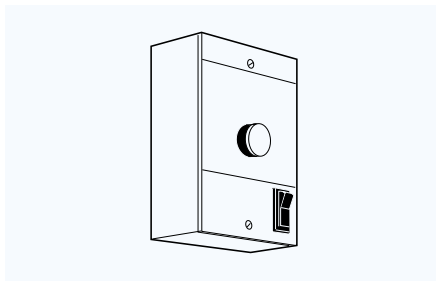
**Typical Code:** CBD100 (100 = fan diameter in cm) - 132°C.  
(For horizontal mounting only).

Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



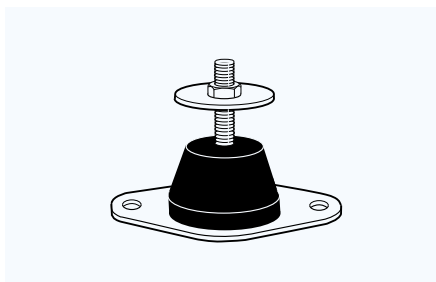
### ATTENUATOR

Standard (non podded), long (non podded), podded, and long podded options available. For dimensional information, please contact Nuair.



### CONTROLS

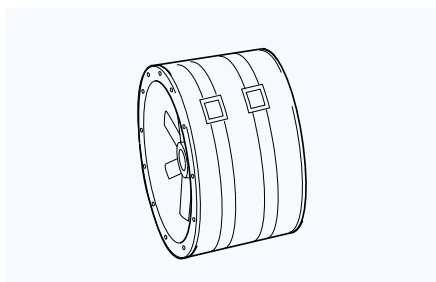
Choice of inverter, electronic or transformer speed controls available. For dimensional information, please contact Nuair.



### ANTI-VIBRATION MOUNTS

Resilient rubber, for fan only. Spring options also available. For dimensional information, please contact Nuair.

**Typical code:** NAV1.



### ACOUSTIC JACKET

Acoustic material laminated with 25mm foam. Complete with straps/buckles for security.



# BIFURCATED AXIALS

High performance, with low maintenance, 'motor out of airstream' bifurcated axial fans suitable for high temperature applications.



## KEY BENEFITS:

- HIGH TEMPERATURE PERFORMANCE
- WIDE RANGE 'STANDARD' BIFURCATED AXIALS
- LOW MAINTENANCE MOTOR OUT OF AIRSTREAM
- LONG LIFE HEAVY GAUGE GALVANISED STEEL CONSTRUCTION
- TESTED TO THE HIGHEST STANDARDS AIR PERFORMANCE TO BS848 (PART 1) 2007 AND ISO5801 (PART 1) 2007 WITH ACOUSTIC PERFORMANCE TO AMCA300.
- COMPREHENSIVE ANCILLARIES INCLUDING ATTENUATORS, FREQUENCY INVERTERS, AND MOUNTING ANCILLARIES





## CONSULTANTS SPECIFICATION



### CASING

Galvanised steel to BS En10142 1991. Fan incorporates inlet and outlet flanges with pre-drilled bolt holes. Other finishes available.



### MOTOR

Motor shall be out of the airstream. Direct drive with high efficiency motors to BS5000, foot mounted TEFV type with IP55 enclosures. Foot mounted class 'F' insulated and has sealed for life ball bearings, wiring direct to the motor terminal box.



### CERTIFICATION AND OPERATING TEMPERATURE

Unit suitable for operation up to 90°C as standard, optional high temperature up to 200°C for in airstream temperature available.



### IMPELLER

Aero-foil selection manufactured from cast aluminium alloy with a die cast aluminium alloy hub.



### INSTALLATION

Internal and external operation and can be installed at any angle.



### PERFORMANCE

An indication of the overall duty range is shown below. Please contact Nuaire for any duty outside the range indicated.



### NOISE

Air performance to BS848 (part 1) 2007 and ISO5801 (part1) 2007 with acoustic performance to AMCA300.



### ANCILLARIES

- Mounting brackets
- Matching flange
- Flexible connect
- Anti-vibration mounts
- Attenuator, guard
- Inlet cone
- Backdraught damper
- Inverters



### APPLICATIONS

- Kitchen extract
- Processing plant
- Paint and spray booths



# BIFURCATED AXIALS 60Hz



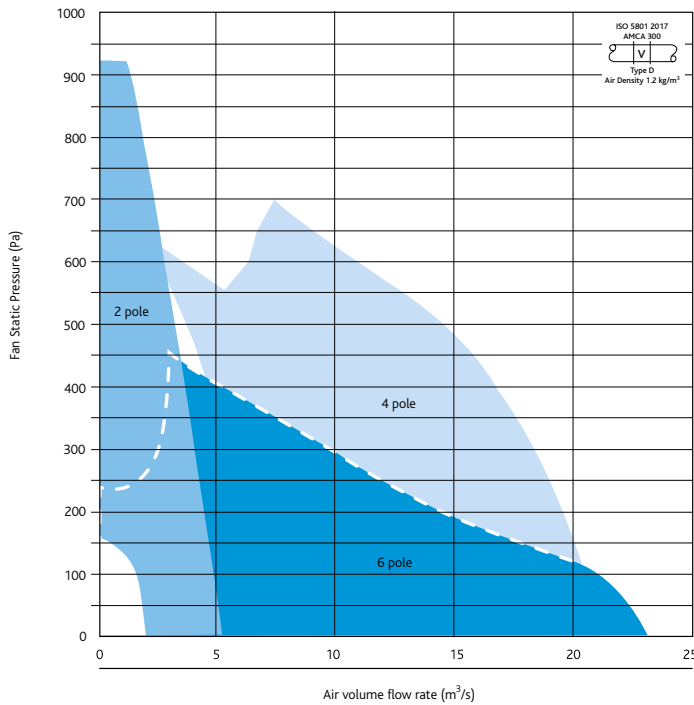
**CODING** AXB100X-XXX

AXB	100	X	-	X	X
1	2	3	4	5	

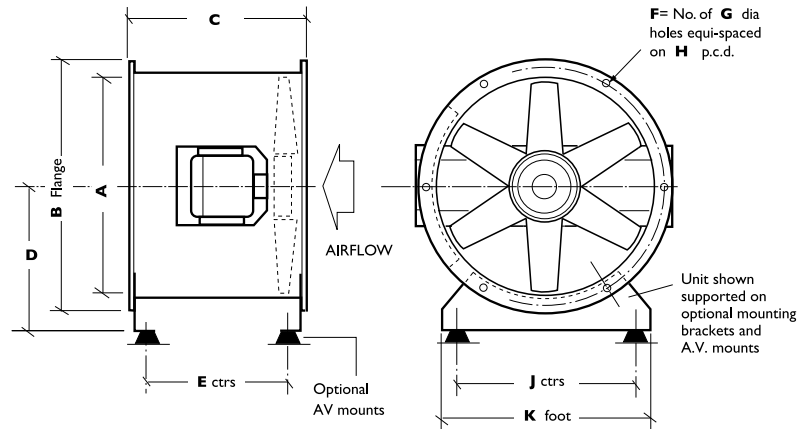
**SAMPLE CODING**

1. Axus Bifurcated fan range
2. Diameter in cm
3. Impeller specification reference
4. Pole
5. 7 - 300°C, 8 - 400°C

Options available in both 380v and 460v.  
Other options available.



\*Note the performance envelop above shows Nuair's 50 & 60Hz Bifurcated Axials.  
Contact Nuair for additional information.

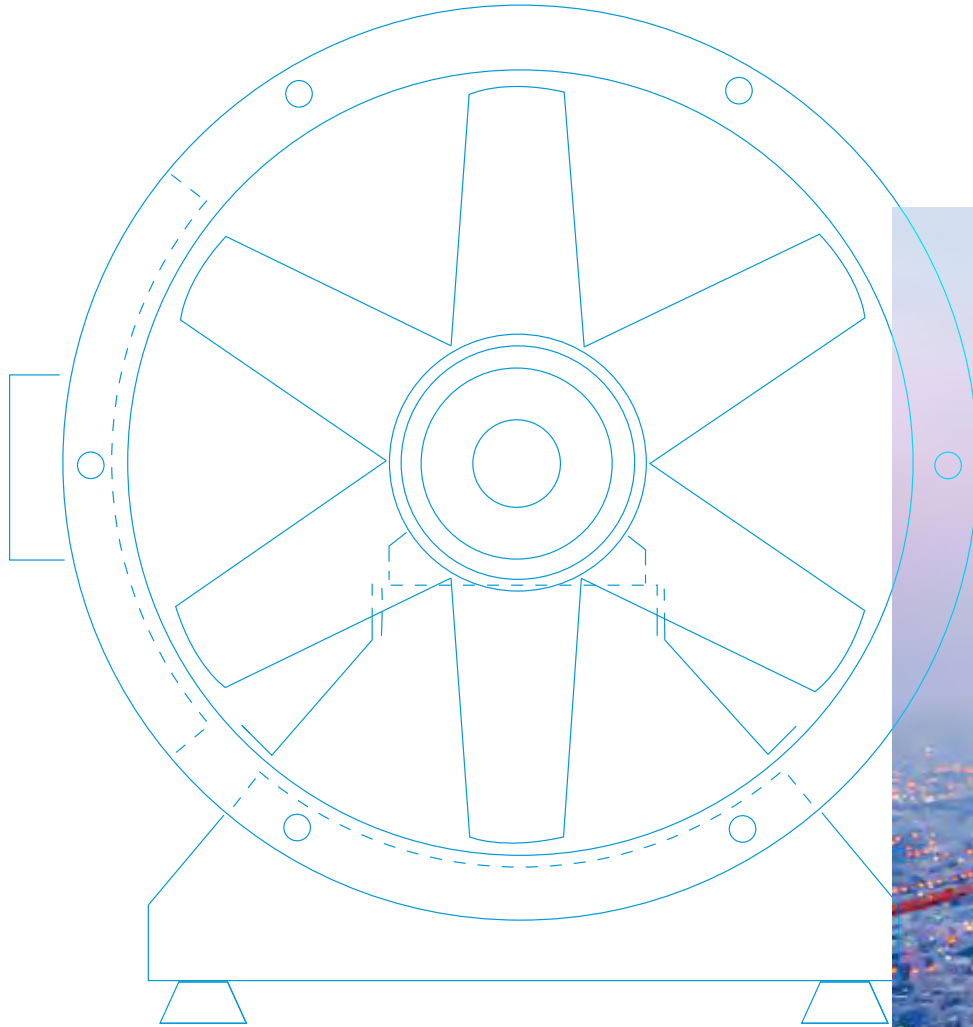


**DIMENSIONS (MM) AND WEIGHT(KG)**

MODEL	A	B	C	E	F	G	H	I	J	K	WEIGHT
AXB31	315	400	500	210	420	8	12	355	220	270	22
AXB35	350	430	500	240	420	8	12	395	250	300	25
AXB40	400	490	530	270	450	8	12	450	290	340	31
AXB45	450	540	530	300	450	8	12	500	330	380	38
AXB50	500	608	605	340	525	12	12	560	380	430	49
AXB56	560	670	605	370	525	12	12	620	420	470	55
AXB63	630	740	630	430	550	12	12	690	500	550	84
AXB71	710	795	700	470	620	16	12	770	540	600	153
AXB80	800	885	950	540	870	16	12	860	590	650	257
AXB90	900	1000	950	600	870	16	15	970	670	750	307
AXB100	1000	1100	950	670	840	16	15	1070	770	850	414

Contact Nuaire for software to make a more detailed selection.





**NUAIRE.** FOR THE COMPLETE VENTILATION SOLUTION

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