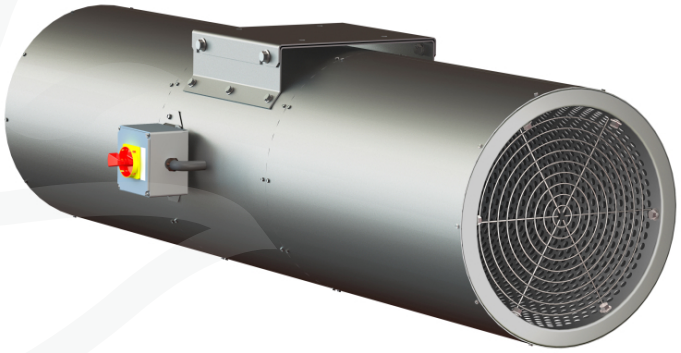
WE CARE FOR YOUR NEEDS.

JET FAN

AXF Series

Axial Type Unidirectional Jet Fan



ENERGY TWIN CITY
A TWIN CITY FAN COMPANY

CATALOGUE ID:
ETC-JET 2023-ED00V0
JULY 2023

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Concept of Jet fans

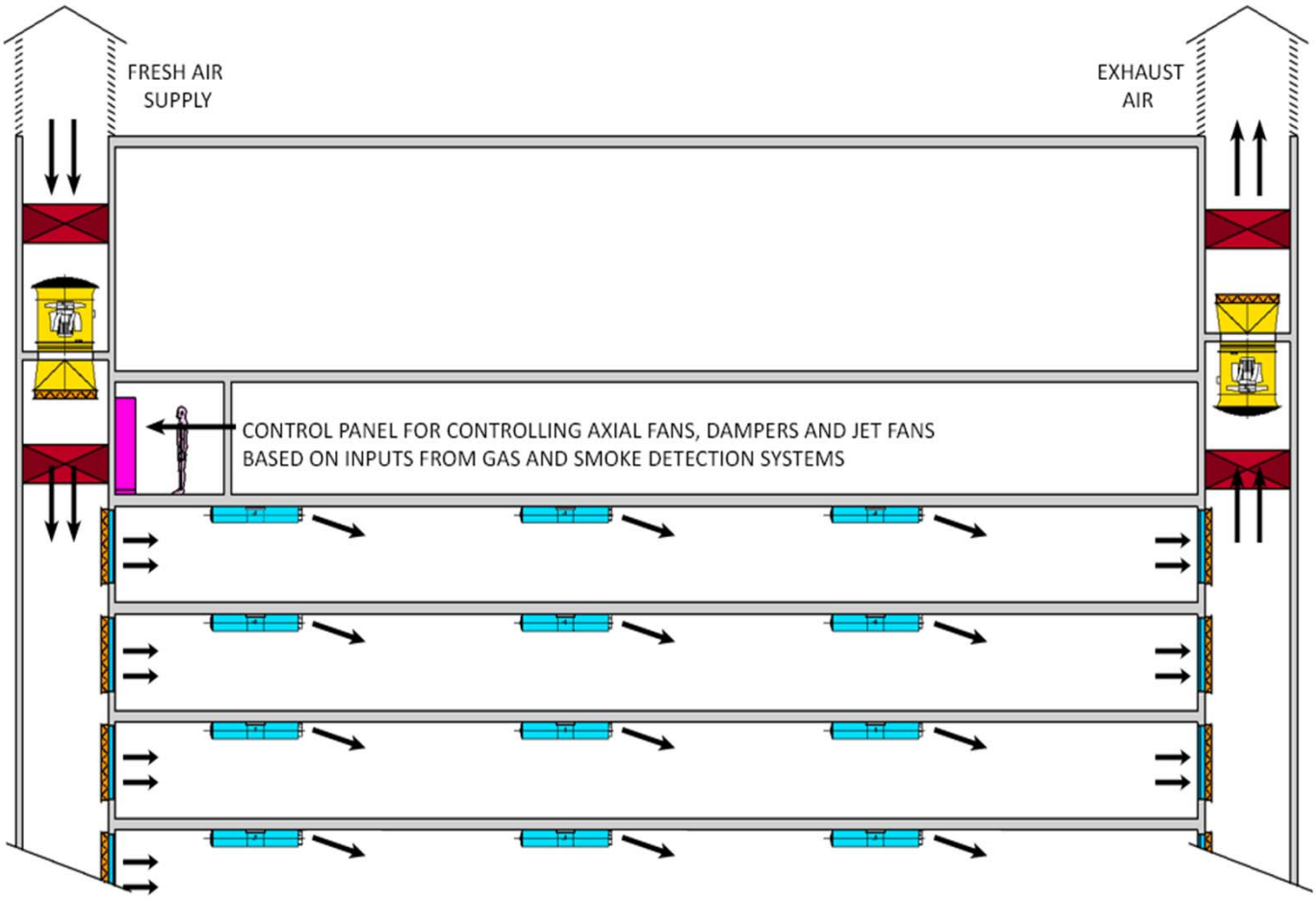
Over the past few years, jet fan technology has established itself as the new standard in car park ventilation in many countries all over the world.

Unlike the conventional ventilation concept based on ducted systems, the concept of jet ventilation (also known as impulse or induction ventilation) is based on a high-velocity stream of air injected by a series of free-blowing silenced axial fans.

Thus, jet fans effectively distribute and transport the air, on each car park level, from the supply to the exhaust points. The decisive design parameters being the air speed profile and the thrust generated by the fan.

Advantages of Jet Ventilation system

- Simplified Design: Eliminates the need and expense of designing a duct system.
- Lower Construction Cost: Jet fans require less height against the ceiling than a ducted system. This means the required height of each level is less, reducing excavation and lowering overall construction cost.
- Flexible installation: positioning of the jet fans is very flexible and can easily be coordinated with other systems within the car park.
- Improved Operational Costs: Eliminating ductwork reduces the system static pressure and allows for smaller supply and exhaust fans to run using less power.
- Enhanced Safety: Jet fans are more efficient at removing noxious fumes and clearing smoke, allowing fire to remain visible and safely approached by fire-fighters.



Construction Features

AXF XXX J 1

Model No.

Jet Type

Size (280, 315, 355, 400)

Axial Fan

Construction:

ETC JET unidirectional Jet Fan Series have 300 °C-2 hours and 400 °C-2 hours certificates in compliance with EN 12101-3. Due to its series airfoil fan blades in the range of diameters 280 mm and 400 mm,

Casings:

Casing is made of high grade galvanized steel sheet with one-piece cylindrical design. Protection Grill on the bodies of jet fans which is directive in the direction of air throw and protective in air suction direction is standard..

Impellers:

ETC Impellers hubs and blades are made of cast aluminium alloy.The aerodynamical profile gurantees high efficiency and low noise The pitch adjustable blades allow correct duty point setting. The variable number of blades increases the performance range.

CERTIFICATIONS

Applus F400 Deg. C 120 Min., CE (IEC60335) EMC & RoHS

Energy Twin City. certifies that the models AXF tested and passed for F400 Deg. C for 120 Min. The certified model fan carries the Applus label for fire safety certifcation.

Low Voltage Directive

IEC 60335-2-80:2015 in conjunction with IEC 60335-1:2010, COR1:2010, COR2:2011, AMD1:2013, AMD2:2016.

EMC Directive

EN 55014-1: 2017+A11: 2020; EN IEC 61000-3-2: 2019;EN 61000-3-3: 2013+A1:2019; EN 55014-2: 2015(IEC 61000-4-2; IEC 61000-4-4; IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-11).

RoHS Directive

Restriction of Hazardous substances in Electrical and Electronic Equipments.

Axial Type Unidirectional Jet Fan

Motors

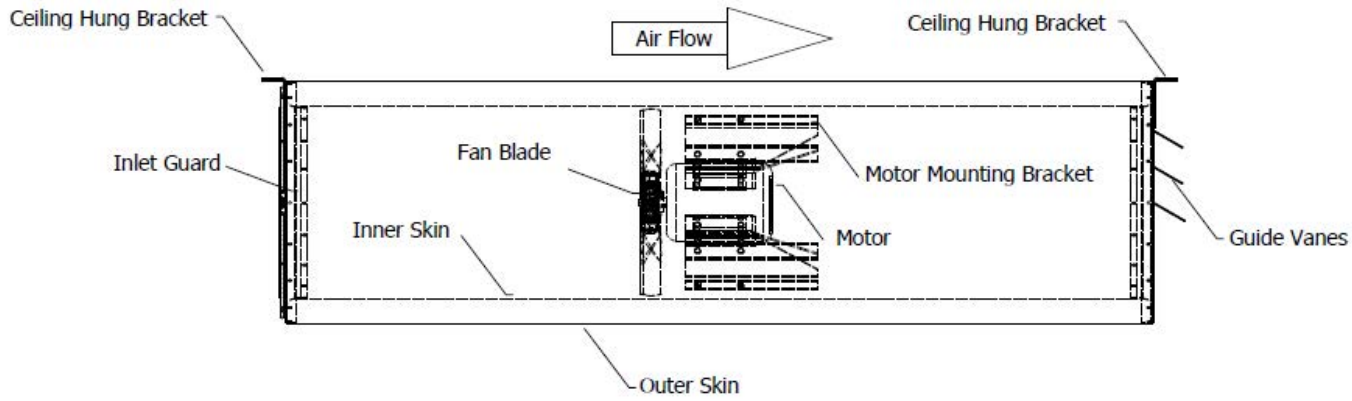
ETC uses 2-speed motor with IP55 protection . Low speed operation is usually sufficient for CO-ventilation under normal conditions. In the event of fire, a considerable power reserve is disposable by switching the fans to full speed. Mains supply is connected either through a terminal box or an optional disconnect switch in standard or high temperature execution.

Fan Performance

JET fans have a high performance. Performance of the Jet Fan Series have been tested in accordance to AMCA standards.

Mounting

JET fans are designed for horizontal ceiling mounting and fixation by means of the supplied fixing brackets attached to the fan casing.

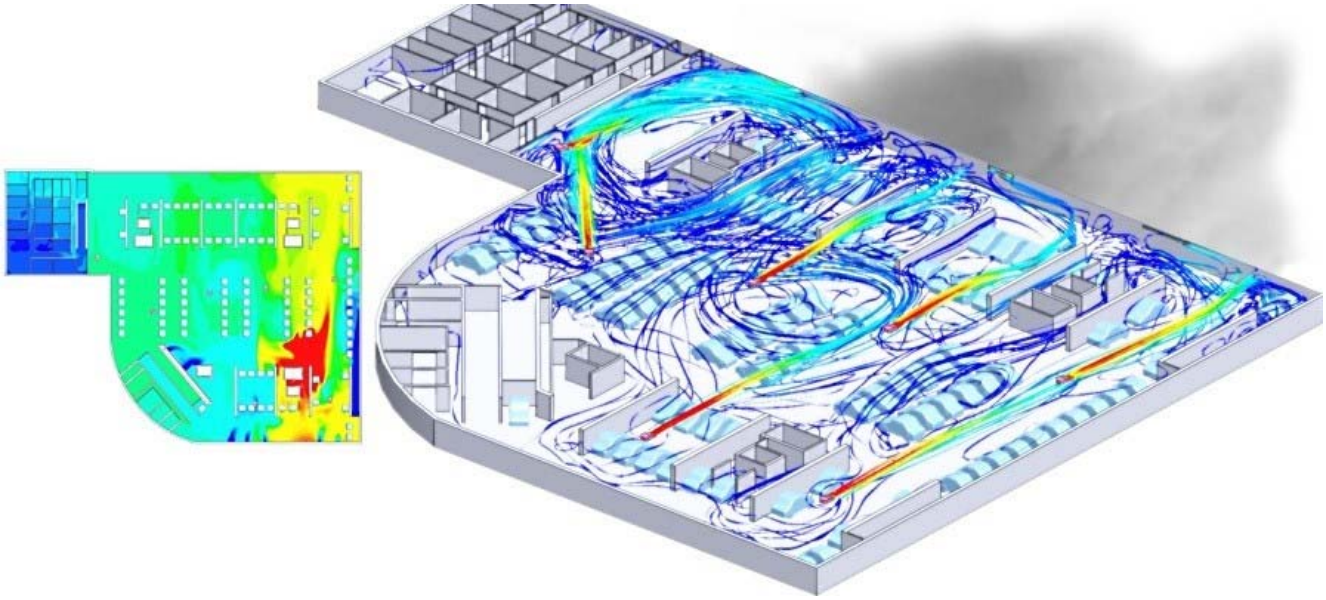


Model	KW 50/60 Hz	Speed - 1/min @ 50 Hz	Speed - 1/min @ 60 Hz	Air Flow - cms	Thrust - N	dBa	KG
AXF280-J1	0.75/0.19	2875/1440	3450/1725	1.1/0.55	24/6	60/45	66
AXF315-J1	0.75/0.19	2875/1440	3450/1725	1.5/0.75	35/9	65/48	70
AXF315-J2	1.10/0.25	2875/1440	3450/1725	1.6/0.9	39/12	67/50	70
AXF355-J1	1.23/0.28	2875/1440	3450/1725	2.1/1.07	53/14	68/50	75
AXF355-J2	1.80/0.43	2875/1440	3450/1725	2.25/1.15	61/16	68/52	78
AXF400-J1	1.80/0.43	2875/1440	3450/1725	2.9/1.5	80/22	72/51	85
AXF400-J2	2.20/0.50	2875/1440	3450/1725	3.1/1.55	92/21	73/52	88

**For larger tunnel fans, please contact factory*

**Energy Twin city reserves the right to change the design,techanical specification and dimensions without prior notice.*

CFD – Computational Fluid Dynamics



ETC offers numerical simulations using CFD- Computational Fluid Dynamics tools to facilitate pre-project work. These predicted results help in the analysis of the model(s) studied in order to understand its/their behaviour. Depending on the results, the models can be optimized to final satisfaction.

The CFD studies will bring you the following benefits:

- Provide decision support thanks to the rapidity of the results obtained
- Improve placements
- Work on complex models
- Optimize scenarios according to the criteria
- Reduce the budgets for prototyping

OPTIONAL ACCESSORIES

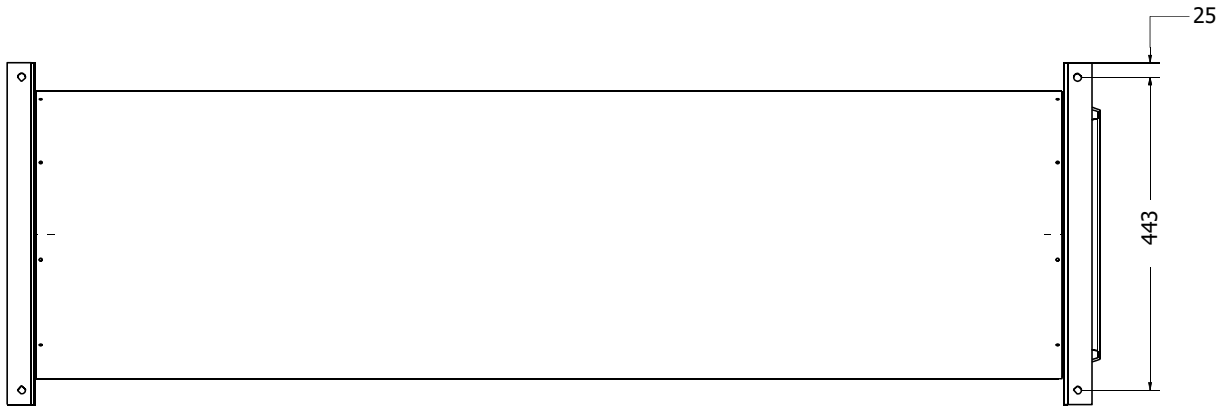
Electrical isolator fitted to fan for security

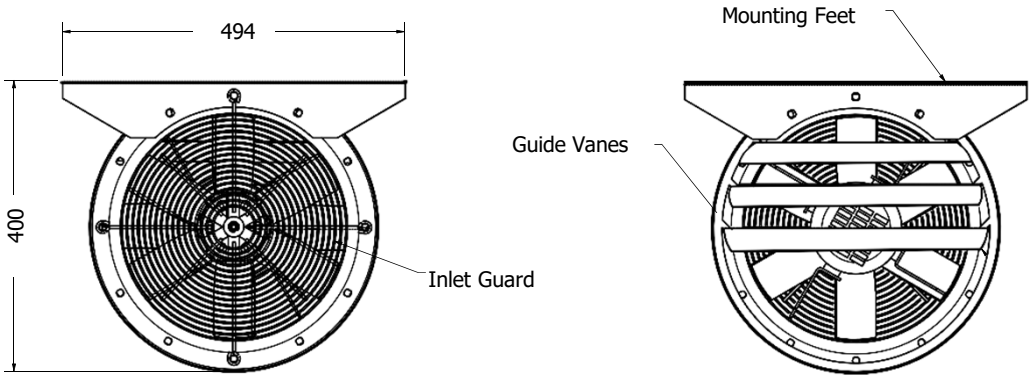
Protection guards at discharge

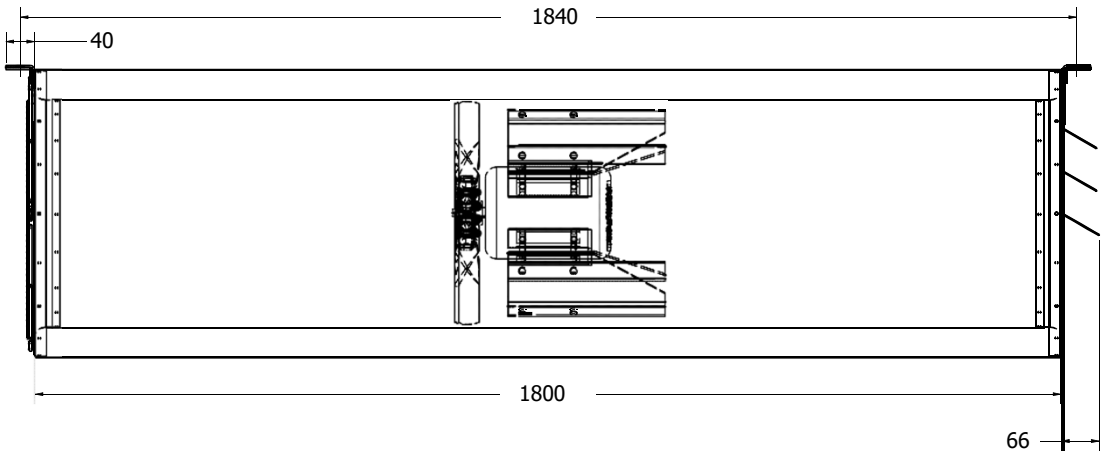
Hanging Bracket on the casing

JET 280 - Axial Type Unidirectional Jet Fan

Model	KW 50/60 Hz	Speed - 1/min @ 50 Hz	Speed - 1/min @ 60 Hz	Air Flow - cms	Thrust - N	dBa	KG
AXF280-J1	0.75/0.19	2875/1440	3450/1725	1.1/0.55	24/6	60/45	66



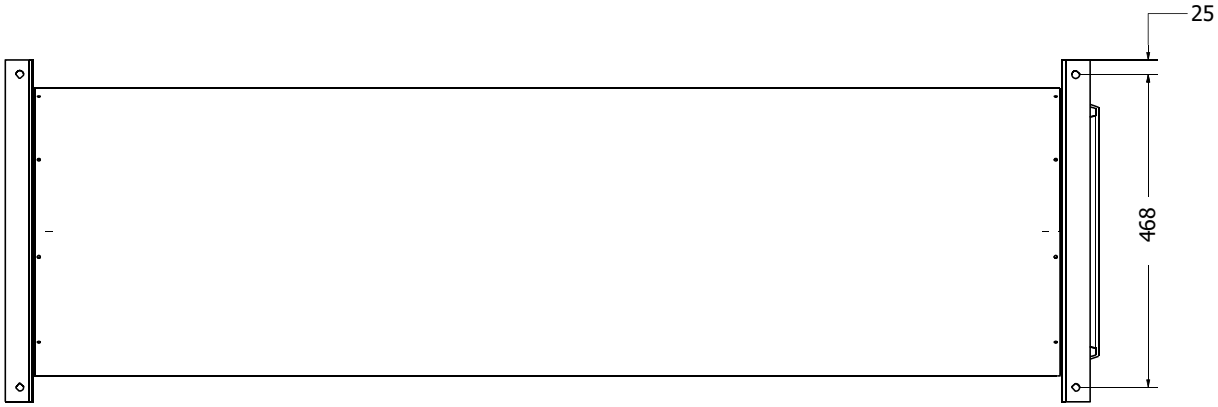


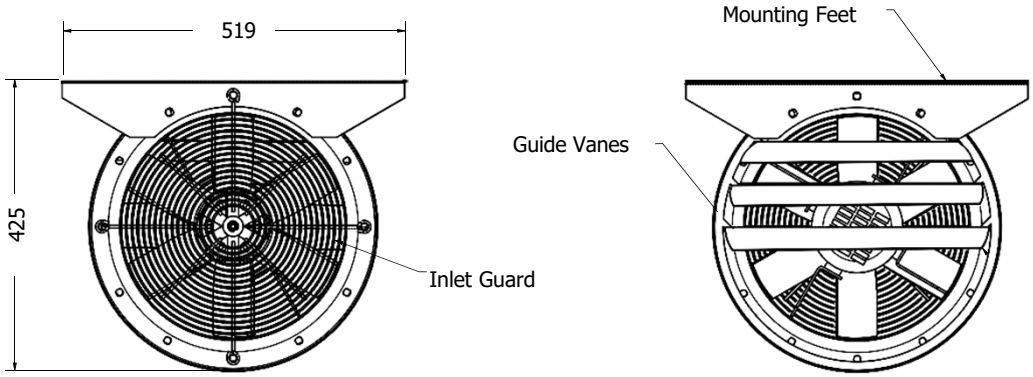


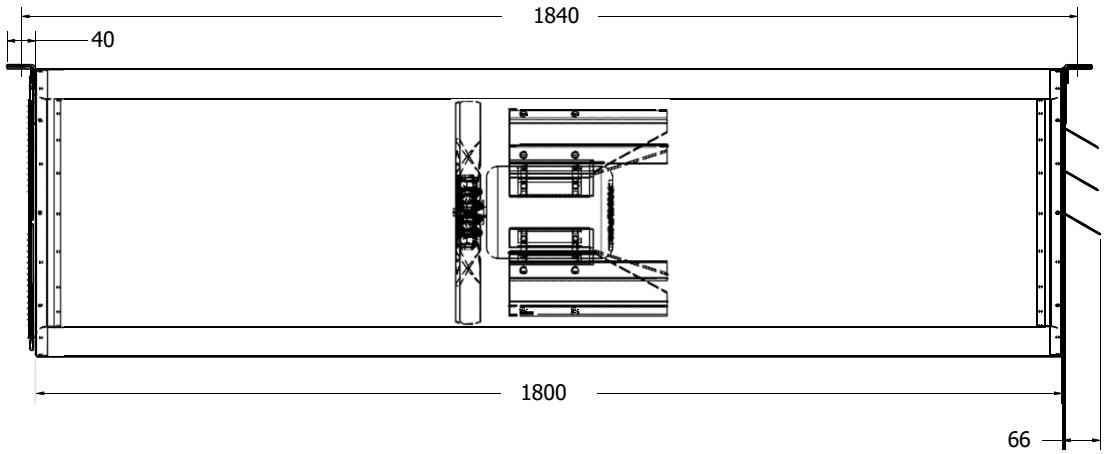
All Dimensions are in mm

JET 315 - Axial Type Unidirectional Jet Fan

Model	KW 50/60 Hz	Speed - 1/min @ 50 Hz	Speed - 1/min @ 60 Hz	Air Flow - cms	Thrust - N	dBa	KG
AXF315-J1	0.75/0.19	2875/1440	3450/1725	1.5/0.75	35/9	65/48	70
AXF315-J2	1.10/0.25	2875/1440	3450/1725	1.6/0.9	39/12	67/50	70



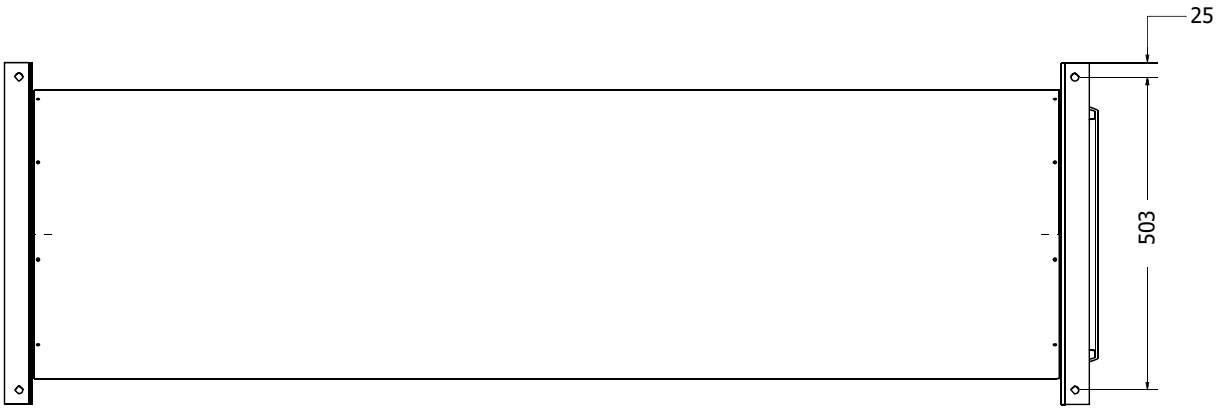


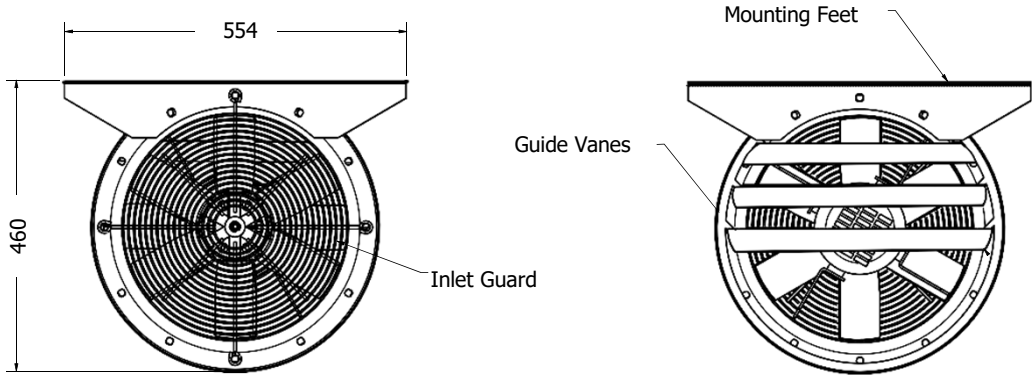


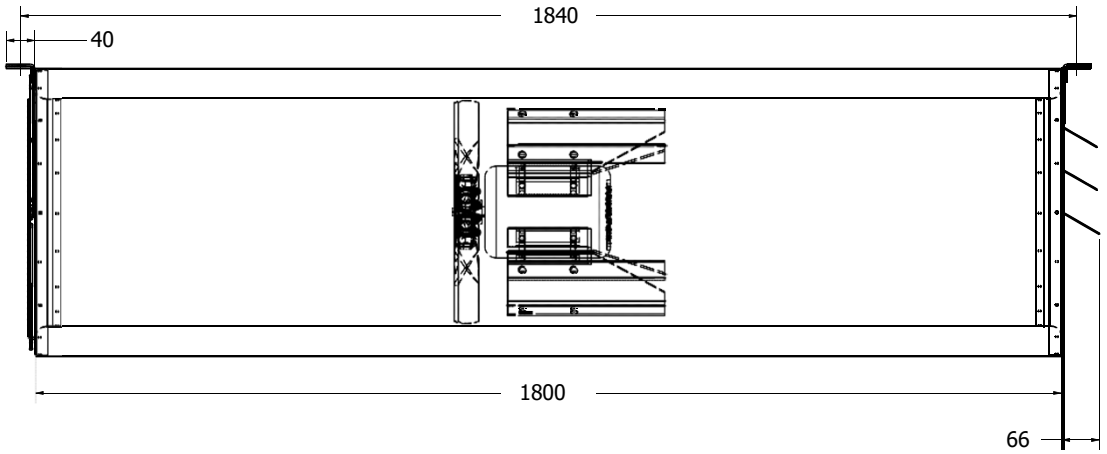
All Dimensions are in mm

JET 355 - Axial Type Unidirectional Jet Fan

Model	KW 50/60 Hz	Speed - 1/min @ 50 Hz	Speed - 1/min @ 60 Hz	Air Flow - cms	Thrust - N	dBa	KG
AXF355-J1	1.23/0.28	2875/1440	3450/1725	2.1/1.07	53/14	68/50	75
AXF355-J2	1.80/0.43	2875/1440	3450/1725	2.25/1.15	61/16	68/52	78



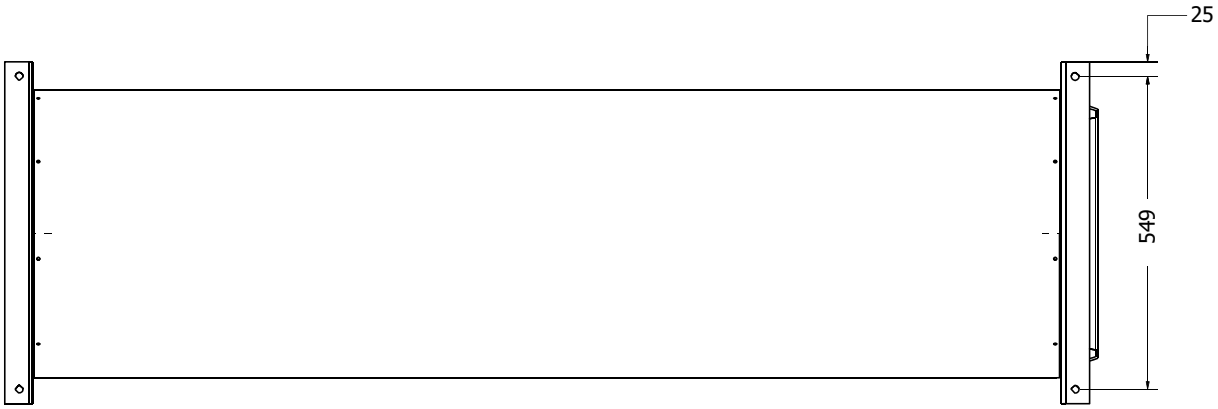


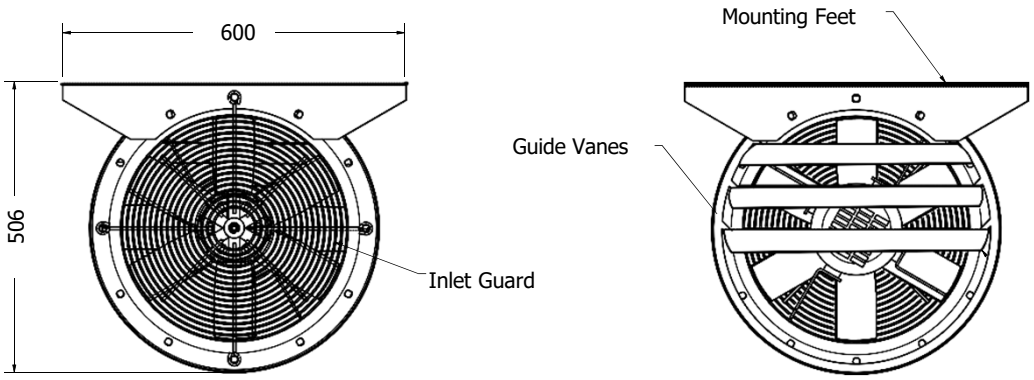


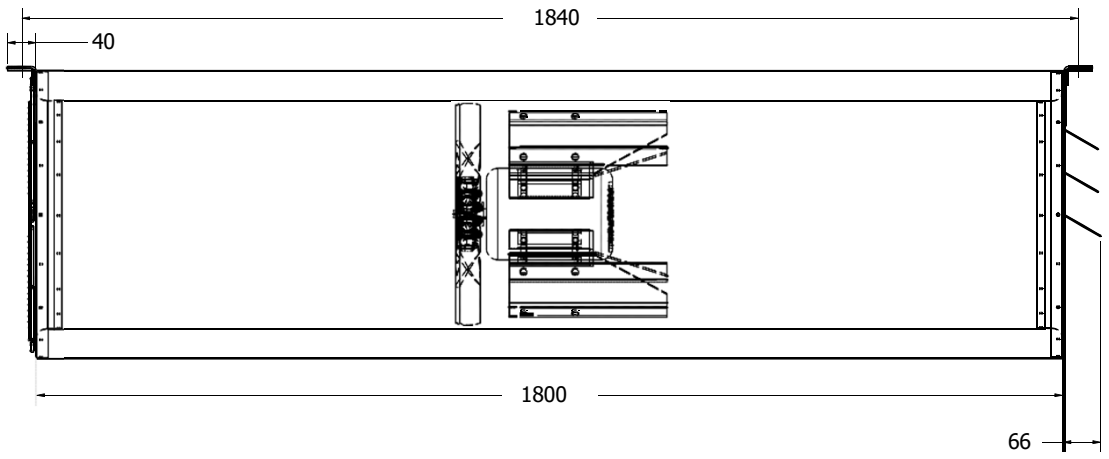
All Dimensions are in mm

JET 400 - Axial Type Unidirectional Jet Fan

Model	KW 50/60 Hz	Speed - 1/min @ 50 Hz	Speed - 1/min @ 60 Hz	Air Flow - cms	Thrust - N	dBa	KG
AXF400-J1	1.80/0.43	2875/1440	3450/1725	2.9/1.5	80/22	72/51	85
AXF400-J2	2.20/0.50	2875/1440	3450/1725	3.1/1.55	92/21	73/52	88







All Dimensions are in mm

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