

► JET FAN

TECHNICAL SPECIFICATIONS



Jet fan system is a smoke exhaust system which is used as ventilation system in parking lots and in case of fire, it ensures safely evacuation of the harmful smoke and gases. It prevents the fire to spread and keeps the evacuation route safe. Thus it prevents the poisoning and drowning. It decreases the harms occurred by high temperature and smoke.

Jet fan choosing and placing criterias; Jet fans would be placed in line or parallel by means there would be no dead space, according to the repulsive force and model specifications.

Repulsive Force (N)- V (m/s) x Q (m³/h) x q (kg/m³)

V = Symbolises the air speed and it changes according to the electric engine power.

Q = Symbolises the volumetric flow rate and it changes according to the fan diameter and to the engine used.

q = Symbolises the air density and calculated as 1.2kg/m³





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- ▶ Placing distance can change according to the architectural project.
 - ▶ Jet fans must be min. 2500 mm away from people.
 - ▶ They force large air masses with the repulsive force, dilute CO and other clean gases in their area with clean air and discharge them.
 - ▶ Ventilation is carried out to remove the gas, dust and heat emitted from vehicles within the parking lot. CO is an exhaust gas that is dangerous to human health. 50 ppm CO level is the hazard limit. The system operates according to the level information from CO detectors. In today's engine technology, CO emissions are very low. Although there is no CO signal reaching the hazard limit, the ventilation system should operate at a minimum level to remove other contaminants.
 - ▶ Jet fans mix the fresh air with the area's air and drags it through the evacuation shaft.
 - ▶ Jet fans are placed in such a way that there is no dead space considering the architectural project.
 - ▶ Evacuation fans' capacity: According to the building usages (TS 3419, VDI2053);

In commercial buildings: Total parking area x 12 m³/h/m²

In residential buildings: Total parking area calculated as x6 m³/h/m²

Jet Fan Automatisation System

- ▶ For daily ventilation, the system must operate according to the CO level signal and the fire alarm signal in case of fire. This can be ensured by adjusting the motor speeds with frequency drivers or by using a dual speed motor.
- ▶ With the scenario written for the region of the incoming signal, the respective jet fans and main evacuation fans must be operated in the desired direction and capacity via the PLC.
- ▶ If two-sided direction fan would be used; the direction of the engine must be configurable via drivers
- ▶ System must be traceable by BMS
- ▶ There must be manuel key in the board for operating in case of emergency.



As EBA AIR CONDITIONING we are manufacturing jet fans in two different types.
These are;

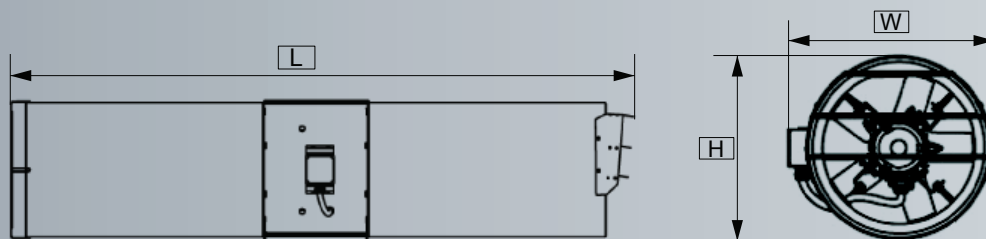
1. Axial Jet Fans
2. Radial Jet Fans

▶ JET FAN

TECHNICAL SPECIFICATIONS

Axial Jet Fans

- ▶ It has two sided and double speed working options.
- ▶ Both sides have silencers.
- ▶ Silencers are rounded bodied
- ▶ Shot nozzles have directional fans.



JET FAN - TWO SIDED DOUBLE CYCLE- 2/4 THERMOSTABLE (F200 - F300)								
MODEL	DIAMETER (mm)	ENGINE POWER (kw)	FLOW ₃ (m ³ /h)	REPULSIVE FORCE (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA AKS JF 315 - 2/4 CYCD-F	Ø 315	0,85 kw - 0,18 kw	4.500 / 2.200 m ³ /h	35/9 N	71/56	1950	400	400
EBA AKS JF 355 - 2/4 CYCD-F	Ø 355	1,1 kw - 0,25 kw	6.500 /3.300 m ³ /h	55/15 N	74/59	1950	440	440
EBA AKS JF 400 - 2/4 CYCD-F	Ø 400	1,5 kw - 0,36 kw	9.000 /3.300 m ³ /h	75/18 N	79/64	1990	500	500
EBA AKS JF 450 - 2/4 CYCD-F	Ø 450	2,2 kw - 0,55 kw	14.000 /6.900 m ³ /h	85/22 N	82/67	2490	550	550

JET FAN - TWO SIDED DOUBLE CYCLE - THERMOLABILE (F 80)								
MODEL	DIAMETER (mm)	ENGINE POWER (kw)	FLOW (m ³ /h)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA AKS JF 315 - 2/4 CYCD-F	Ø 315	0,85 kw - 0,18 kw	4.500 / 2.200 m ³ /h	35/9 N	71/56	1950	400	400
EBA AKS JF 355 - 2/4 CYCD-F	Ø 355	1,1 kw - 0,25 kw	6.500 /3.300 m ³ /h	55/15 N	74/59	1950	440	440
EBA AKS JF 400 - 2/4 CYCD-F	Ø 400	1,5 kw - 0,36 kw	9.000 /3.300 m ³ /h	75/18 N	79/64	1990	500	500
EBA AKS JF 450 - 2/4 CYCD-F	Ø 450	2,2 kw - 0,55 kw	14.000 /6.900 m ³ /h	85/22 N	82/67	2490	550	550

JET FAN - TWO SIDED SINGLE CYCLE -THERMOSTABLE(F200 - F300)								
MODEL	DIAMETER (mm)	ENGINE POWER (kw)	FLOW (m ³ /h)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA AKS JF 315 - 2 CYTD-F	Ø 315	0,85 kw	4.500 m ³ /h	35 N	71	1950	400	400
EBA AKS JF 355 - 2 CYTD-F	Ø 355	1,1 kw	6.500m ³ /h	55 N	74	1950	440	440
EBA AKS JF 400 - 2 CYTD-F	Ø 400	1,5 kw	9.000m ³ /h	75 N	79	1990	500	500
EBA AKS JF 450 - 2 CYTD-F	Ø 450	2,2 kw	14.000m ³ /h	85 N	82	2490	550	550

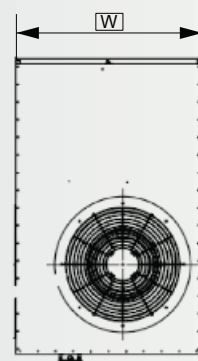
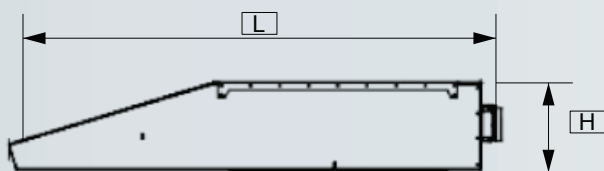
JET FAN - TWO SIDED SINGLE CYCLE- THERMOLABILE(F 80)								
MODEL	DIAMETER (mm)	ENGINE POWER (kw)	FLOW ₃ (m ³ /h)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA AKS JF 315 - 2 CYTD-F	Ø 315	0,85 kw	4.500 m ³ /h	35 N	71	1950	400	400
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EBA AKS JF 400 - 2 CYTD-F	Ø 400	1,5 kw	9.000m ³ /h	75 N	79	1990	500	500
EBA AKS JF 450 - 2 CYTD-F	Ø 450	2,2 kw	14.000m ³ /h	85 N	82	2490	550	550

SOUND LEVEL TESTED FROM 1.5M DISTANCE



Radial Jet Fans

- ▶ It has higher repulsive power. 100N Repulsive power model has more than 70 m influence area. Thus it's used lesser fans. Lesser cable costs and installation works.
- ▶ With its backward curved radial fan, it produces less turbulent shots.
- ▶ Engines have single speed.
- ▶ Models can work in different capacities via frequency drivers thus it ensures energy saving.



JET FAN-SINGLE CYCLE - THERMOSTABLE (F200-F300)								
MODEL	FLOW (m ³ /h)	ENGINE POWER (kw)	CYCLE (d/d)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA RD JF 6	6.000 m ³ /h	1,62	1500	50	72	1300	350	800
EBA RD JF 9	8.800 m ³ /h	2,44	1500	98	77	1800	400	1050

JET FAN-SINGLE CYCLE- THERMOLABILE(F80)								
MODEL	FLOW (m ³ /h)	ENGINE POWER (kw)	CYCLE (d/d)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA RD JF 6	6.000 m ³ /h	1,62	1500	50	72	1300	350	800
EBA RD JF 9	8.800 m ³ /h	2,44	1500	98	77	1800	400	1050

JET FAN-DOUBLE CYCLE- THERMOSTABLE (F200-F300)								
MODEL	FLOW (m ³ /h)	ENGINE POWER (kw)	CYCLE (d/d)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA RD JF 6	6.000 m ³ /h	1,62/0,38	1500/750	50/14	72/59	1300	350	800
EBA RD JF 9	8.800 m ³ /h	2,44/0,69	1500/750	98/22	77/61	1800	400	1050

JET FAN-DOUBLE CYCLE- THERMOLABILE(F80)								
MODEL	FLOW (m ³ /h)	ENGINE POWER (kw)	CYCLE (d/d)	REPULSIVE POWER (N)	SOUND LEVEL (dB)	L(mm)	H(mm)	W(mm)
EBA RD JF 6	6.000 m ³ /h	1,62/0,38	1500/750	50/14	72/59	1300	350	800
EBA RD JF 9	8.800 m ³ /h	2,44/0,69	1500/750	98/22	77/61	1800	400	1050

SOUND LEVEL TESTED FROM 1.5M DISTANCE.

► SMOKE REMOVAL FAN

TECHNICAL SPECIFICATION & USER'S MANUAL

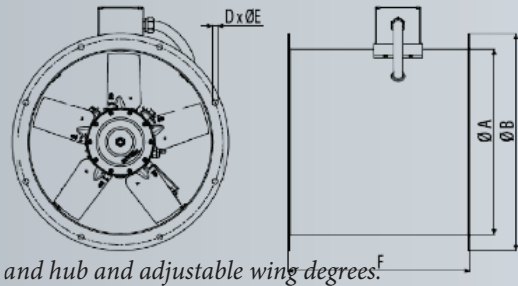
Smoke Removal Fan Technical Specifications



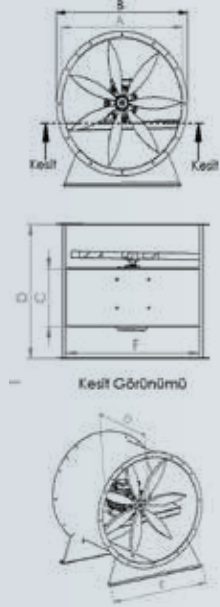
EBA axial smoke removal fans are resistant to the high temperature and they are used in parking lots, metro stations and similar projects. We can manufacture proper capacity products according to the needs with its high capacity range, different fan wings and hubs and adjustable wing degrees.

Specifications

- Conforming to EN12101-3 standarts
- From 400 mm to 1250 mm diameter option
- Dipping galvanized 3 mm body
- Aluminium alloyed fan hub
- Best and optimum solution to the needs with its different fan wings and hub and adjustable wing degrees.
- IP55 protected, from 0,55 kw to 15kw capacity electric engine options.
- 300 degrees ,120 degrees and 80 degrees heat resistance options.



TECHNICAL SPECIFICATIONS



Smoke Removal Fan Size Table

Model	A	B	D
Ø 400	430	520	420
Ø 450	480	570	450
Ø 500	530	620	500
Ø 560	590	680	540
Ø 630	660	750	580
Ø 710	740	830	600
Ø 800	830	920	680
Ø 900	930	1020	750
Ø 1000	1030	1130	800
Ø 1120	1150	1250	850
Ø 1250	1280	1380	900



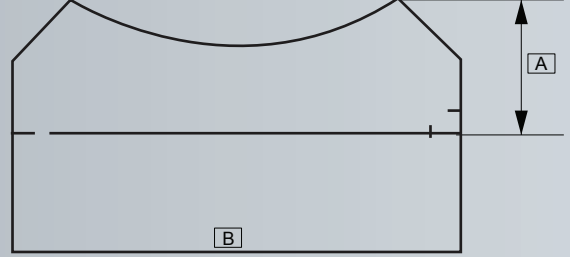
SMOKE REMOVAL FAN			
MODEL	FLOW (m ³ /h)	MAX (Pa)	ENGINE POWER (Kw - d/d)
EBA - 400 / 003	3000	200	0,55 - 1450
EBA - 450 / 005	5000	200	0,55 - 1450
EBA - 450 / 007	7000	200	0,75 - 1450
EBA - 500 / 009	9000	250	0,75 - 1450
EBA - 500 / 011	11000	300	1,1 - 1450
EBA - 560 / 013	13000	200	1,1 - 1450
EBA - 560 / 015	15000	250	1,5 - 1450
EBA - 630 / 016	16000	200	1,5 - 1450
EBA - 630 / 018	18000	250	2,2 - 1450
EBA - 630 / 020	20000	300	3,0 - 1450
EBA - 710 / 022	22000	200	2,2 - 1450
EBA - 710 / 024	24000	250	3,0 - 1450
EBA - 710 / 026	26000	300	4,0 - 1450
EBA - 800 / 027	27000	200	3,0 - 1450
EBA - 800 / 030	30000	250	4,0 - 1450
EBA - 800 / 034	34000	300	5,5 - 1450
EBA - 800 / 038	38000	350	7,5 - 1450
EBA - 900 / 040	40000	250	4 - 1450
EBA - 900 / 044	44000	300	5,5 - 1450
EBA - 900 / 048	48000	350	7,5 - 1450
EBA - 1000 / 050	50000	300	7,5 - 1450
EBA - 1000 / 055	55000	400	11 - 1450
EBA - 1120 / 060	60000	400	11 - 1450
EBA - 1250 / 065	65000	400	11 - 1450

► SMOKE REMOVAL FAN

Optional Accessories

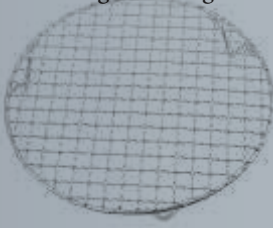
1- Counter Flange;

- Compatible with the nominal diameter of the body
- Dipping galvanized material
- Choosing according to the body diameter
- Sizes are equal to the flange sizes.



2- Leg;

- Compatible with the nominal diameter of the body
- Dipping galvanized material
- Choosing according to the body diameter

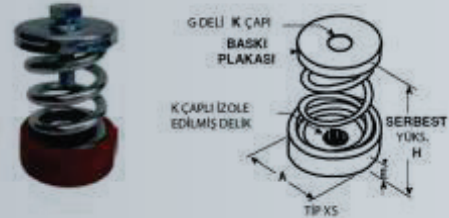


MODEL	A	B
EBA DTF 40	570	300
EBA DTF 45	635	315
EBA DTF 50	680	315
EBA DTF 63	680	236
EBA DTF 71	700	240
EBA DTF 80	800	280
EBA DTF 90	900	295
EBA DTF 100	1000	370
EBA DTF 112	1120	450
EBA DTF 125	1250	450

3 -Wire Cage

- Used in suction and blowing flanges.

- Dipping galvanized material



4- Vibration Holding Wedge

A=60 mm H=82 mm E=14 mm



5- Silencer



SMOKE REMOVAL FANS WITH CASING

Optionally, we produce the same size and capacity smoke extraction fans 30 mm stone wool insulated sandwich panel (Inner sheet 0.6 mm dip galvanized, outer sheet powder coated 0.6 mm dip galvanized sheet) smoke extraction fans both sound and heat intended for insulation.

We provide different options to our customers and flexibility for the projects with out smoke removal fans with casing.

