AITB Series

Bifurcated Axial Fans
With External Motors

190 °C

FAN
- Tubular sheet steel casing with rotating cover.
- Cast aluminium rotors.
- Sealed transmission unit (IP66) with double retention system.
- Motor - Rotor air flow direction.
- Operating temperature -25°C + 150°C

MOTOR
- IE3 efficiency motors for powers equal to or greater than 0,75 KW expect single-phase. 2-speed and 8-pole.
- Class F motors with ball bearings and IP55 protection.
- Single-phase 230V-50Hz and three-phase 230/400V-50Hz (up to 3Kw) and 400/690V-50Hz (powers greater than 3KW)

FINISH
- Anticorrosive finish of polyester resin polymerised at 190°C. previously degreased with phosphate-free nanotechnological treatment.

ON REQUEST
- Motor-rotor air flow direction.
- Rotors 100% reversible.
- Special windings for different voltages

TECHNICAL SPECIFICATIONS

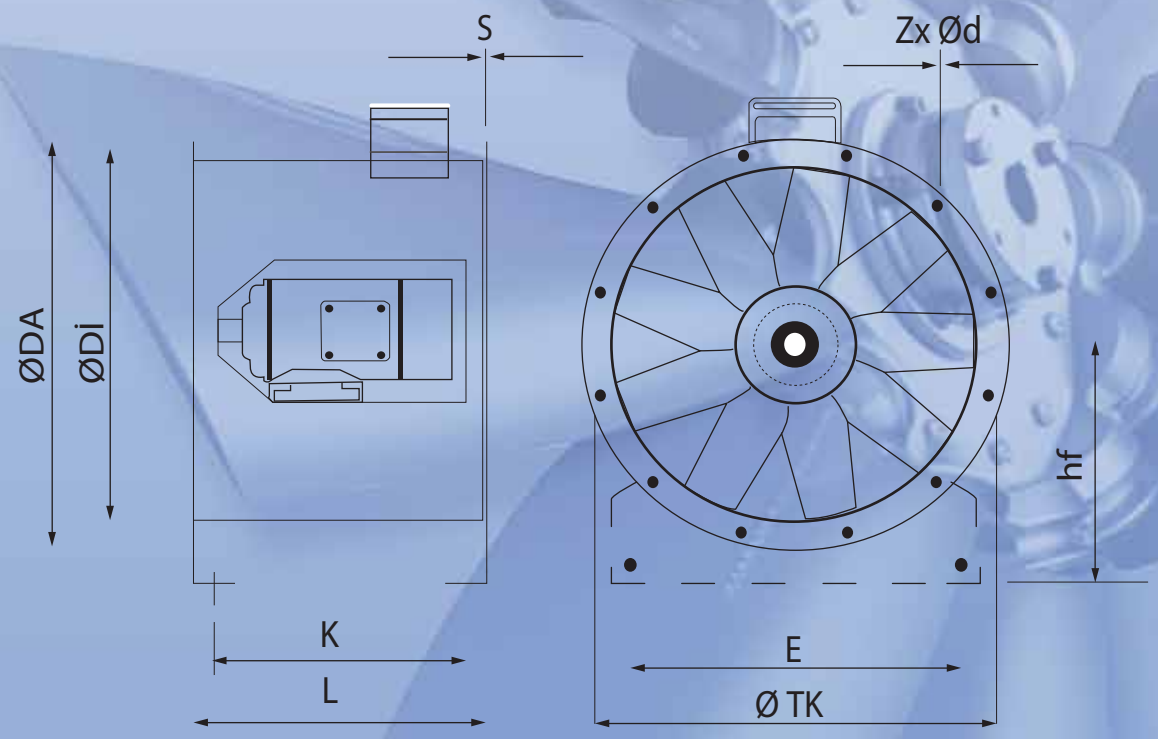
MODEL	MAX. AIR FLOW (m^3/h)	WATT	SOUND (dBA)	RPM (dk)
71U/4.T	20000	3,00	84	1450
80U/4.T	26000	4,00	86	1450
90U/4.T	33000	5,50	90	1450

AIR FLOW PERFORMANCE DATA

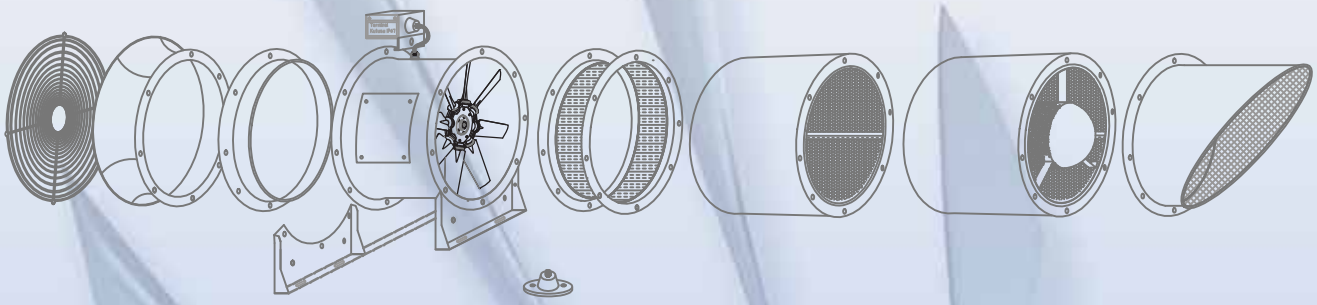
MODEL	AIR FLOW PERFORMANCE DATA / PA / (m^3/h)						
	125	150	175	200	250	300	350
AITB 71U/4.T	20000	19500	19000	18500	16000	12000	10000
AITB 80U/4.T	-	26000	25000	23500	22500	18000	16000
AITB 90U/4.T	-	-	33000	31000	28500	26000	24000

DIMENSIONS

MODEL	DIMENSIONS/ mm					
	ØDİ	ØTK	ØDA	ZxØO	L	S
AITB 71U/4.T	710	751	812	16 x 14	670	3
AITB 80U/4.T	805	837	904	16 x 14	670	3
AITB 90U/4.T	900	934	1004	16 x 14	800	3



ACCESSORIES CONNECTION DIAGRAMS



CAR PARK JET FAN SYSTEM - 3

Step 2 - Identify Fan Selection and Spacing

Table 5 shows the maximum and recommended spacings between JetVent Fans for different levels of fan thrust. These spacing distances are guidelines for fans placed in series. When using these spacings, air velocities in most of the ventilated areas should be greater than 1m/s. Analysis will determine whether this is achieved in a particular car park design. In some ideal cases, designs using the maximum distances have been effective.

Fan thrust depends on the operating speed of a particular fan unit and its thrust rating. See tables one to four for the thrust ratings of various fan models at different speeds.

Operating fan thrust	Recommended fan to fan spacing distance	Maximum fan to fan spacing distance	Approximate coverage area
50N	45m	60m	100m^2
28N	34m	45m	560m^2
25N	30m	40m	500m^2
19N	23m	30m	380m^2
12N	12m	20m	250m^2

Table 5. Fan spacing and coverage

Note that using fewer higher rated JetVent fans generally makes the system more cost effective than using more lower rated fans. However, to effectively ventilate car parks with unusual or irregularly shaped geometries, selecting more fans with smaller thrust ratings may be necessary.

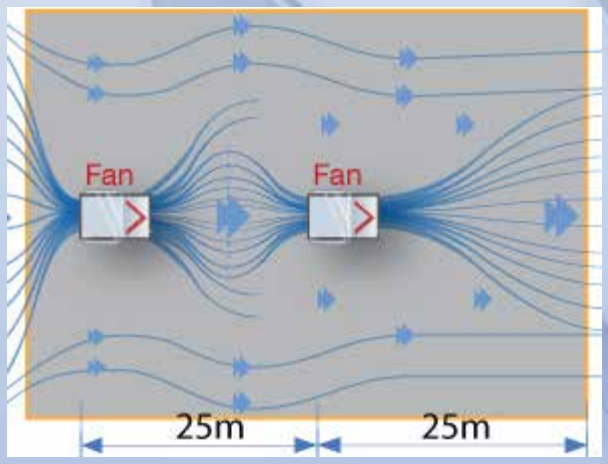


Figure 11(a). Two 25N fans

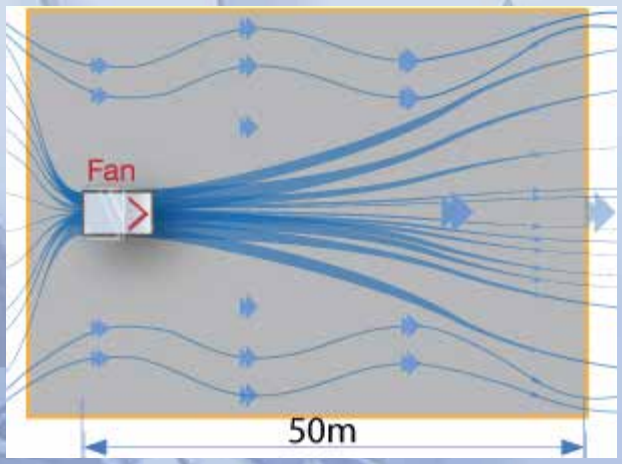


Figure 11(b). One 50N fan

Step 3 - Design Example

For the purpose of estimating costs, the steps below may be bypassed. Allow 5N of thrust per 100m2 of car park floor area to approximate the number of fans required. Fans should be placed in the laneways with the air blowing along them. This will ensure that the high air velocities close to the outlet nozzle do not significantly disturb pedestrian traffic as velocities will be lower at the lane edges. Also, ensure that the throw pattern of the selected fan is long enough to reach the next impulse fan.

Figure 12 shows an example of how fans are sized and placed based on floor area.

Figure 12. Fan sizing and placement example