

## SMOKE EXHAUST FANS



## AREAS OF USE FOR JET FAN AND SMOKE EXHAUST FANS



### ***Carpark ventilation and smoke exhaust system***

*Jetfan system is used for smoke exhaust when there is a fire at car parks besides the daily ventilation. It prevents smoke to diffuse whole area and provides fire escapes as smoke free and allows people to escape and Fire fighters can access to the source of fire to tackle. It reduces the harms of the smoke and high temperature to the building.*

*DYNFLOW will Be your partner with our professional and expert team to guarantee the reliable system solution and will reduce the energy cost for carpark ventilation.*

## WORKING PRINCIPLE



### Working principle

- *INDUCTION (radial) and/or impulse (axial) jet fans with different capacities could be used to make proper design and to fulfill the requirements of daily and fire-mode ventilation.*
- *Jet fans with several thrust capacities of 50N, 86N, or 100N shall be located in a layout to ensure continuous air circulation and no stagnation.*
- *Jet fans shall run at lower speeds to remove the gases produced by the vehicles and allow low operating cost for daily ventilation.*
- *Jet fans shall run a higher speeds to remove the smoke and allow people to escape and fire-fighters to access the carpark in order to control the fire.*
- *Firemen can approach the fire zone in less than 10 meters distance and fight the fire in a short time. Thus the whole carpark area shall be prevented from extended damages.*



## FEATURES AND BENEFITS



### *Features and benefits*

- **Higher system performance:** *Smoke is controlled very well and provides better efficiency and quicker smoke extraction.*
- **Lower installation cost:** *The installation is easier hence there is no duct work.*
- **Lower energy consumption:** *Total Fan power is less hence there is no duct pressure loss. Total energy consumption is 40% less than the conventional system.*
- **Lower Electrical system cost:** *Emergency power generator will be smaller with lower cost.*
- **Shorter installation time:** *Hence the installation is faster which will results to lower installation and commissioning cost.*
- **Easier service:** *Service and maintenance is easier.*
- **Easier design:** *It does not coincide with other mechanical and electrical equipment hence there is no duct work.*
- **Lower construction cost:** *Reduced installation height and installation between downstream beams allow reduced construction built cost.*
- **Extra park spots:** *Hence there is no vertical duct work.*



## GENERAL FEATURES

**Jetfans are Selected According To The Thrust Values;**

$$\text{Thrust (N)} = V \times Q \times \rho$$

$V = \text{Air Velocity (m/s)}$   
 $Q = \text{Air Volume (m}^3\text{/s)}$   
 $\rho = \text{Air Density (kg/m}^3\text{)}$

- Jet fans shall be F300 class, tested and certified according to EN12101-3 standard.

**Temperature Classification according to EN12101-3**

Class	F200	F300	F400	F600	F842
Temperature (°C)	200	300	400	600	842
Time (min)	120	60	120	60	-

### Jetfan Layout


- Jet fan layout designed according to architectural plan, fire zones and extract points or shafts.
- It is possible to use truly reversible jet fans to make a proper design.

### Throw distance

Axial Jetfan Type	Thrust (N)	Parallel Distance Between Jetfans	Linear Distance Between Jetfans
Axial Jetfan	50N	15 m	30 m
Axial Jetfan	80N	15 m	50 m
Induction Centrifugal Jetfan	50N	15-17 m	40 m
Induction Centrifugal Jetfan	100N	15-20 m	80 m

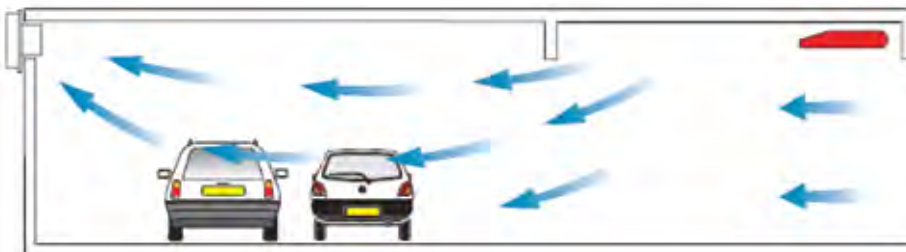
- Jet fans can be installed between downstream beams as indicated below.
- Main extract fans must run when there is fire signal
- Jet fans must run after 3 min to allow people to escape from the fire area.

### Installation details of Axial Jet fans between downstream beams



H (mm)	L min. (mm)
400	2000
500	2500
600	3000

**Radial Jet fans decrease when installed away from beams**



## AUTOMATIC CONTROL SYSTEM-CFD ANALYSIS

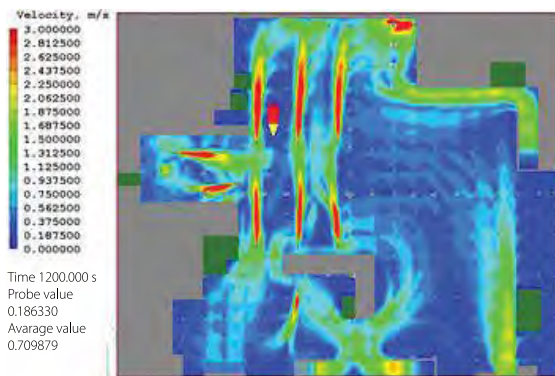


### **Automatic control system and MCC panel**

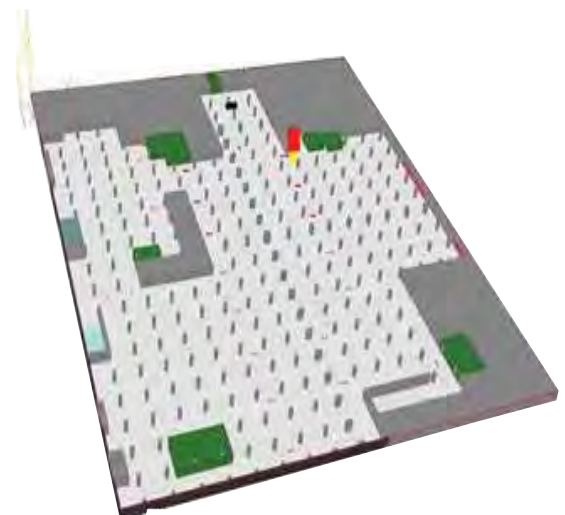
- The system runs according to the CO level inside the carpark for daily ventilation. Moreover , the system runs according to the fire alarm which is generated by the fire detection system in case of fire.
- The main axial fans, jetfans, dampers run regarding to the scenario of the PLC panel.
- Frequency convertors run at the desired capacity which results better control and energy saving.
- The fans must run at the maximum speed by-passing the frequency convertors.
- The whole system can be traced by the BMS.
- There must be manual emergency start at the MCC panel.

### **CFD analysis**

It is a computational simulation for the temperature distribution of smoke, air speed depending on time as shown at the figure. One burning car with a total Fire potential of 4MW is assumed for these calculations. The simulation is done accepting a critical fire starting point.



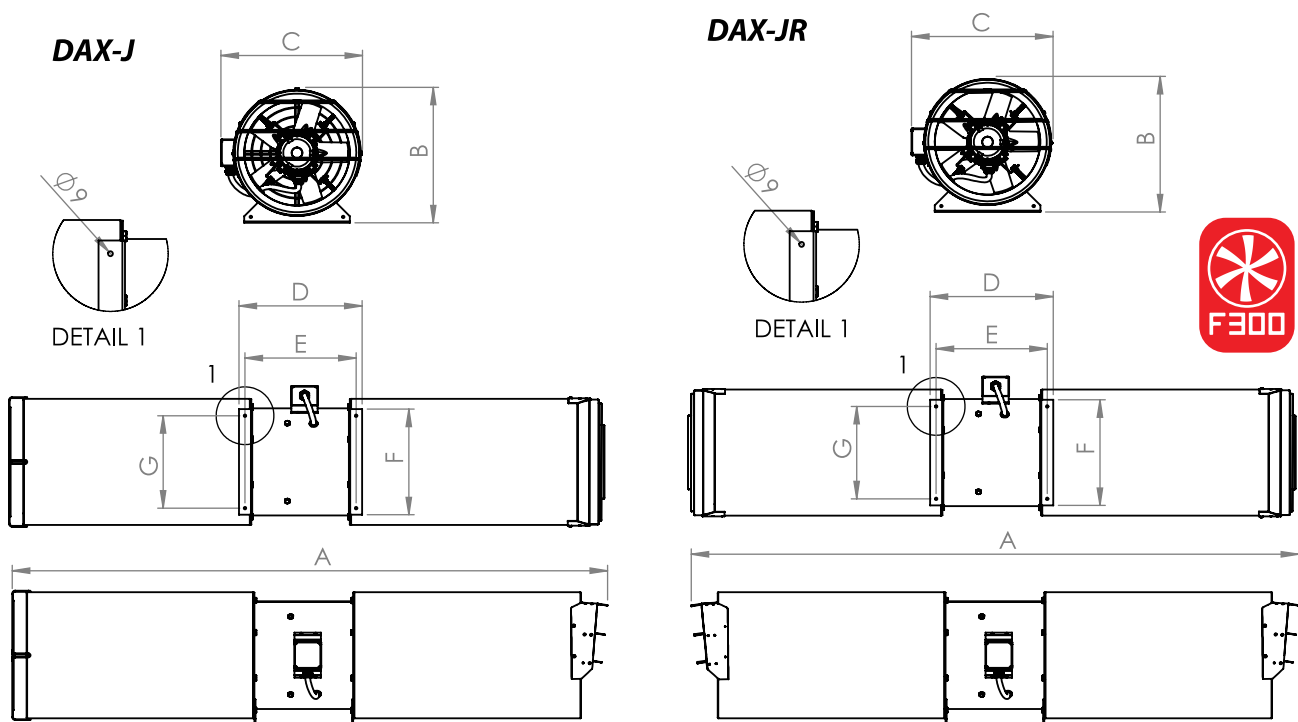
**CFD - Velocity**



**3D car park plan**

## DAX-J AXIAL JET FAN - F300

- DYNFLOW uni-directional and reversible models allow design flexibility.
- Jet fans has silencers at both sides to provide laminar flow besides low noise level.
- Uni-directional jet fan has deflectors at one end and zinc plated guard. Reversible jet fan has deflectors at both ends.
- Jet fans are tested and certified at 300°C temperature for 2 hours according to EN 12101-3 standard.



### Uni-Directional Two Speed Jetfan 300°C and 2 hour

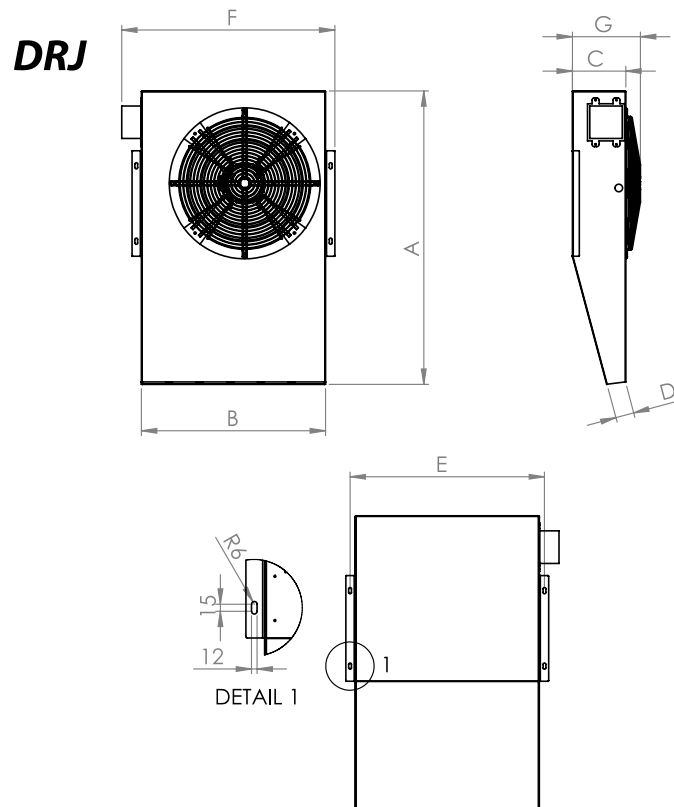
Model	Thrust (N)	Air speed (m/s)	Sound level (dB(A)@1m)	RPM	Motor power (Kw)	Current (A)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DAX-J 400-50	50/13	18.2/9.3	63/50	2880/1440	1.32/0.3	2.99/0.96	72	2250	515	535	465	420	400	350
DAX-J 400-85	85/21	23.7/11.8	70/54	2880/1440	2.64/0.6	5.56/1.85	73	2250	515	535	465	420	400	350

### Reversible Two Speed Jetfan 300°C and 2 hour

Model	Thrust (N)	Air speed (m/s)	Sound level (dB(A)@1m)	RPM	Motor power (Kw)	Current (A)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DAX-JR 400-50	50/13	18.2/9.3	64/51	2880/1440	1.32/0.3	2.99/0.96	72	2300	515	535	465	420	400	350
DAX-JR 400-75	75/19	22.3/11.2	71/55	2880/1440	2.64/0.6	5.56/1.85	73	2300	515	535	465	420	400	350

## DRJ RADIAL ( INDUCTION ) JET FAN - F300

- DYNFLOW radial induction fan, DRJ 100N and 50N thrust models allow less number of jet fans design. Subsequently, electrical work and installation cost shall be reduced.
- Backward curved radial fans allow less turbulence of air.
- The maximum height of radial jet fans is 355 mm and they are ideal for height restricted carpark design.
- DRJ jet fans are tested and certified at 300°C temperature for 2 hours according to EN 12101-3 standard.
- Two speed motors are optional.
- Single speed motors jet fans can be driven by frequency convertors at the desired capacity for better performance and energy saving.



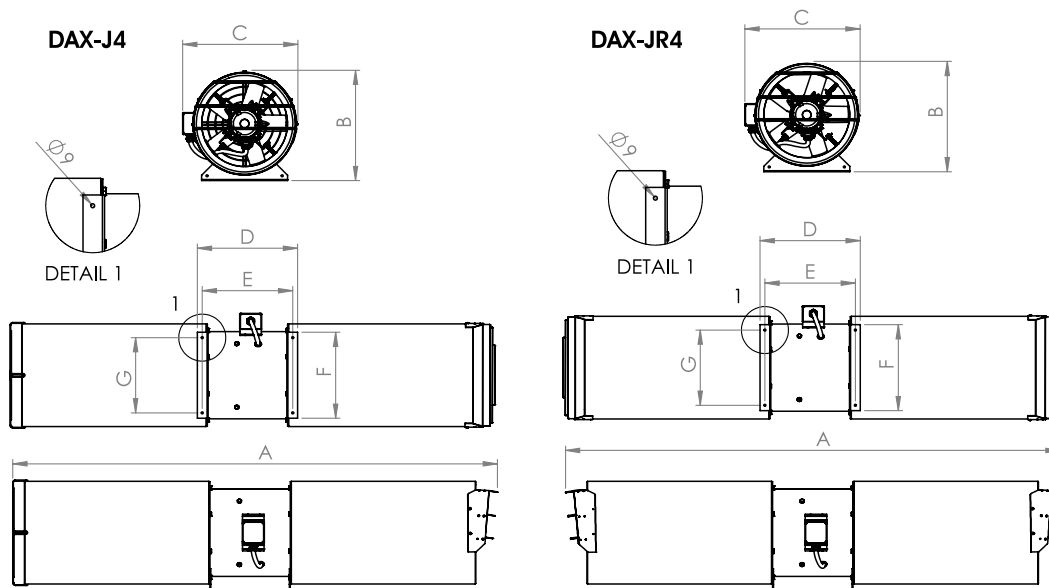
**Two speed induction Jet fans – 300°C temperature for 2-hours.**

Model	Thrust (N)	Air speed (m/s)	Sound level (dB(A)@1m)	RPM	Motor power (Kw)	Current (A)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DRJ-50	50/12	25.6/12.6	73/58	1440/720	1.44/0.36	3.5/1.55	83	1265	795	230	80	837	920	295
DRJ-100	96/17	31.5/13.3	74/59	1440/720	2.64/0.66	6.05/2.42	143	1830	1150	290	67	1200	1275	335



## DAX-J4 AXIAL JET FAN - F400

- DYNFLOW uni-directional and reversible models allow design flexibility.
- Jet fans has silencers at both sides to provide laminar flow besides low noise level.
- Uni-directional jet fan has deflectors at one end and zinc plated guard. Reversible jet fan has deflectors at both ends.
- Jet fans are tested and certified at 400°C temperature for 2 hours according to EN 12101-3 standard.



### Uni-Directional Two Speed Jetfan 400°C and 2 hour

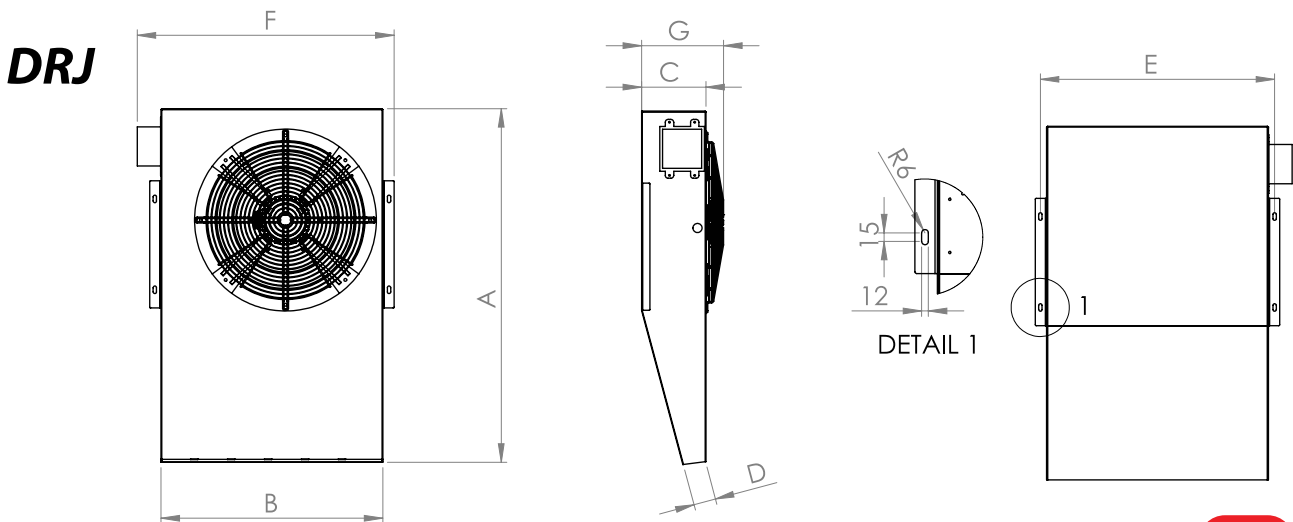
Model	Thrust (N)	Air speed (m/s)	Sound level (dB(A)@1m)	speed	Motor power (Kw)	Voltage	HZ	Current (A)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DAX - J4 - 315 - 24	24/10	16/8	66/48	2880/1440	0,96/0,24	400	50	2,3/0,72	114	1750	390	575	470	436	475	424
DAX - J4 - 355 - 45	45/10	20/10	70/53	2880/1440	1,32/0,3	400	50	2,99/0,96	123,4	1910	445	615	470	436	515	464
DAX - J4 - 400 - 50	50/13	18,2/9,3	63/50	2880/1440	1,32/0,3	400	50	2,99/0,96	139,3	2090	490	660	468	434	560	509
DAX - J4 - 400 - 85	85/21	23,7/11,8	70/54	2880/1440	2,64/0,6	400	50	5,56/1,85	148,3	2090	490	660	468	434	560	509

### Reversible Two Speed Jetfan 400°C and 2 hour

Model	Thrust (N)	Air speed (m/s)	Sound level (dB(A)@1m)	Speed	Motor power (Kw)	Voltage	HZ	Current (A)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DAX - JR4 - 315 - 24	24/10	16/8	67/49	2880/1440	0,96/0,24	400	50	2,3/0,72	115,2	1830	390	575	470	436	475	424
DAX - JR4 - 355 - 45	45/10	20/10	71/54	2880/1440	1,32/0,3	400	50	2,99/0,96	124,6	1990	445	615	470	436	515	464
DAX - JR4 - 400 - 50	50/13	18,2/9,3	64/51	2880/1440	1,32/0,3	400	50	2,99/0,96	140,5	2170	490	660	468	434	560	509
DAX - JR4 - 400 - 75	75/19	22,3/11,2	71/55	2880/1440	2,64/0,6	400	50	5,56/1,85	149,5	2170	490	660	468	434	560	509

## DRJ-4 RADIAL ( INDUCTION ) JET FAN - F400

- DYNFLOW radial induction fan, DRJ 100N and 50N thrust models allow less number of jet fans design. Subsequently, electrical work and installation cost shall be reduced.
- Backward curved radial fans allow less turbulence of air.
- The maximum height of radial jet fans is 355 mm and they are ideal for height restricted carpark design.
- DRJ jet fans are tested and certified at 400°C temperature for 2 hours according to EN 12101-3 standard.
- Two speed motors are optional.
- Single speed motors jet fans can be driven by frequency convertors at the desired capacity for better performance and energy saving.



**Two speed induction Jet fans – 400°C temperature for 2-hours.**

Model	Thrust (N)	Air speed (m/s)	Sound level (dB(A)@1m)	RPM	Motor power (Kw)	Current (A)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DRJ-4-50	50/12	25.6/12.6	73/58	1440/720	1.44/0.36	3.5/1.55	83	1265	795	230	80	837	920	295
DRJ-4-100	96/17	31.5/13.3	74/59	1440/720	2.64/0.66	6.05/2.42	143	1830	1150	290	67	1200	1275	335

## DAX-S AXIAL SMOKE EXHAUST FANS - F300

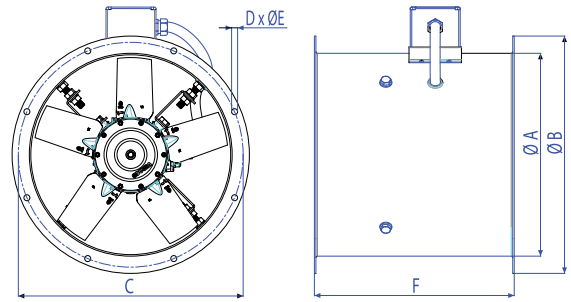
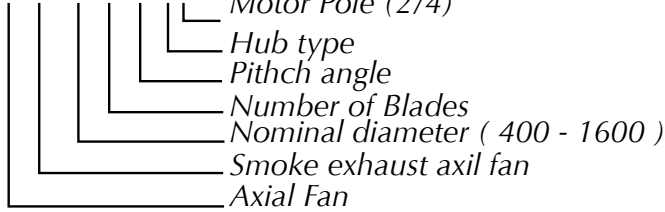
*DYNFLOW DAX-S Axial fans are used in carparks, subways, refrigeration and mining ventilation projects besides general ventilation. They are suitable for industrial and commercial applications. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations.*



### **Features and Benefits**

- F300 certificate in comply with EN 12101-3 standard.
- Full range from 400mm up to 1600mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- IP 67 external terminal box.
- IP 55 Electrical motors with H-class insulation from 0.75 kW up to 55 kW.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- 300 °C operating temperature for 2 hours.

DAX - S - 560-5/20-V2



FAN	Motor frame	Ø A (mm)	Ø B (mm)	Ø C (mm)	D x ØE (mm)	F (mm)
400	80-90	400	475	450	8xØ12	400
	100					450
500	80-90	500	585	560	12xØ12	400
	100					450
560	80-90	560	645	620	12xØ12	400
	100-112					450
	132					570
630	80-90	630	715	690	12xØ12	400
	100-112					450
	132					570
	160					710
710	80-112	710	795	770	16xØ12	450
	132					570
	160					710
	180					790
	200					840
800	80-112	800	885	860	16xØ12	450
	132					570
	160					710
	180					790
	200					840
900	80-112	900	1000	970	16xØ12	450
	132					570
	160					710
	180					790
1000	80-112	1000	1110	1070	16xØ15	450
	132					590
	160-180					790
	200					840
1120	100-132	1120	1240	1190	20xØ15	590
	160-180					790
	200					840
	225					1000
1250	100-132	1250	1380	1320	20xØ15	590
	160-180					790
	200					840
	225					1000
	250					1100
1400	132	1400	1540	1470	20xØ15	590
	160-180					790
	200					840
	225					1000
	250					1100
1600	132	1600	1750	1680	24xØ19	590
	160-180					790
	200					840
	225					1000
	250					1100

## DAN-S AXIAL SMOKE EXHAUST FANS - F400

DYNFLOW DAN-S Axial fans are used in car parks, subways and airports ventilation projects besides general ventilation. They are suitable for industrial and commercial applications. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations.



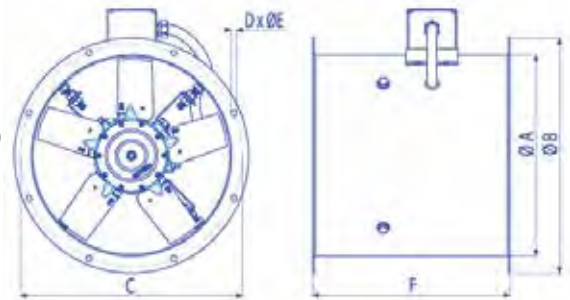
### **Features and Benefits**

- F400 certificate in comply with EN 12101-3 standard.
- Full range from 400mm up to 1250mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- IP 67 external terminal box.
- IP 55 Electrical motors with H-class insulation from 0.75 kW up to 55 kW.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- 400°C operating temperature for 2 hours.

## TECHNICAL SPECIFICATIONS

DAN - S - 560-5/20-V2

- └─ Motor Pole (2/4)
- └─ Hub type ( V, E, N, C, O, T, U )
- └─ Pitch angle
- └─ Number of Blades
- └─ Nominal diameter ( 315 - 1250mm )
- └─ Smoke exhaust fan
- └─ Axial Fan ( F400 )



**Note: The lines Ø 315 and Ø 355 added to the axial fan table will also be added to the table below.**

FAN	Motor Frame	ØA	ØB	ØC	DxØE	F
400	80-90	400	475	450	8xØ12	400
	100					450
450	80-90	450	475	500	8xØ12	400
	100					450
500	80-90	500	585	560	12xØ12	400
	100					450
560	80-90	560	645	620	12xØ12	400
	100-112					450
	132					570
630	80-90	630	715	690	12xØ12	400
	100-112					450
	132					570
	160					710
710	80-112	710	795	70	16xØ12	450
	132					570
	160					710
	180					790
	200					840
800	80-112	800	885	860	16xØ12	450
	132					570
	160					710
	180					790
	200					840
900	80-112	900	1000	970	16xØ12	450
	132					570
	160					710
	180					790
1000	80-112	1000	1110	1070	16xØ15	450
	132					590
	160-180					790
	200					840
1120	100-132	1120	1240	1190	20xØ15	590
	160-180					790
	200					840
	225					1000
1250	100-132	1250	1380	1320	20xØ15	590
	160-180					790
	200					840
	225					1000
	250					1100

## DAX-S-H AXIAL SMOKE EXHAUST FAN WITH CASING

*DYNFLOW DAX-S-H Axial smoke exhaust fans with Casing Units are used in carparks and metro ventilation projects which required high temperature resistance. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations. All Fans are easily accessible through service door. Double-skin casing with 50 mm rock-wool acoustic and thermal insulation allows best soundproofing.*

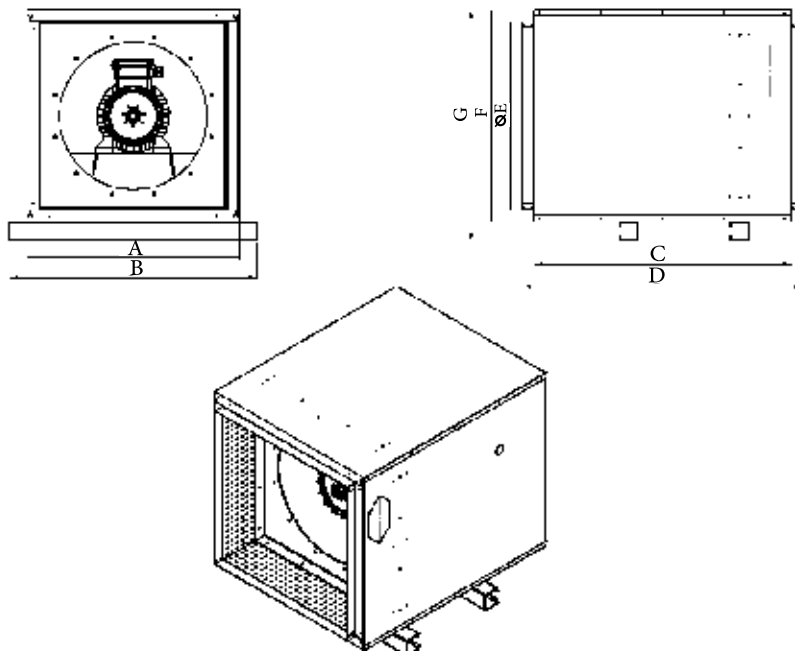


### **Features and Benefits**

- F300 certificate in comply with EN 12101-3 standard.
- Full range from 400mm up to 1400mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- Perforated galvanized steel sheet inner skin.
- 50 mm rock-wool insulation.
- IP 67 external terminal box.
- IP 55 Electrical motors with H-class insulation.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- 300 °C operating temperature for 2 hours.

MODEL	Diemnsions(mm)						
	A	B	C	D	E	F	G
DAX-S-H 400	656	756	570	670	550	656	704
DAX-S-H 450	706	806	570	670	600	706	754
DAX-S-H 500	756	906	700	800	650	756	804
DAX-S-H 560/1	806	956	700	800	700	806	854
DAX-S-H 560/2	806	956	950	1050	700	806	854
DAX-S-H 630/1	906	1056	700	800	800	906	954
DAX-S-H 630/2	906	1056	1100	1200	800	906	984
DAX-S-H 710/1	956	1106	700	800	850	956	1004
DAX-S-H 710/2	956	1106	1100	1200	850	956	1034
DAX-S-H 710/3	956	1106	1400	1500	850	956	1054
DAX-S-H 800/1	1056	1206	700	800	950	1056	1104
DAX-S-H 800/2	1056	1206	1100	1200	950	1056	1134
DAX-S-H 800/3	1056	1206	1400	1500	950	1056	1154
DAX-S-H 900/1	1156	1306	700	800	1050	1156	1204
DAX-S-H 900/2	1156	1306	1100	1200	1050	1156	1234
DAX-S-H 900/3	1156	1306	1400	1500	1050	1156	1254
DAX-S-H 1000/1	1256	1456	700	800	1150	1256	1304
DAX-S-H 1000/2	1256	1456	1100	1200	1150	1256	1334
DAX-S-H 1000/3	1256	1456	1400	1500	1150	1256	1334
DAX-S-H 1120/1	1406	1606	950	1050	1300	1406	1484
DAX-S-H 1120/2	1406	1606	1400	1500	1300	1406	1504
DAX-S-H 1250/1	1556	1806	1100	1200	1450	1556	1634
DAX-S-H 1250/2	1556	1806	1600	1700	1450	1556	1634
DAX-S-H 1400/1	1755	2008	1100	1197	1653	1755	1855
DAX-S-H 1400/2	1755	2008	1750	1847	1653	1755	1855

*\* For technical selection please contact DYNFLOW team*





## DAX-H AXIAL FAN WITH CASING

*DYNFLOW DAX-H Axial fans with Casing Units are used in carparks, subways, refrigeration and mining ventilation projects besides general ventilation. They are suitable for industrial and commercial applications. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations. All Fans are easily accessible through service door. Double-skin casing with 50 mm rock-wool acoustic and thermal insulation allows best soundproofing.*

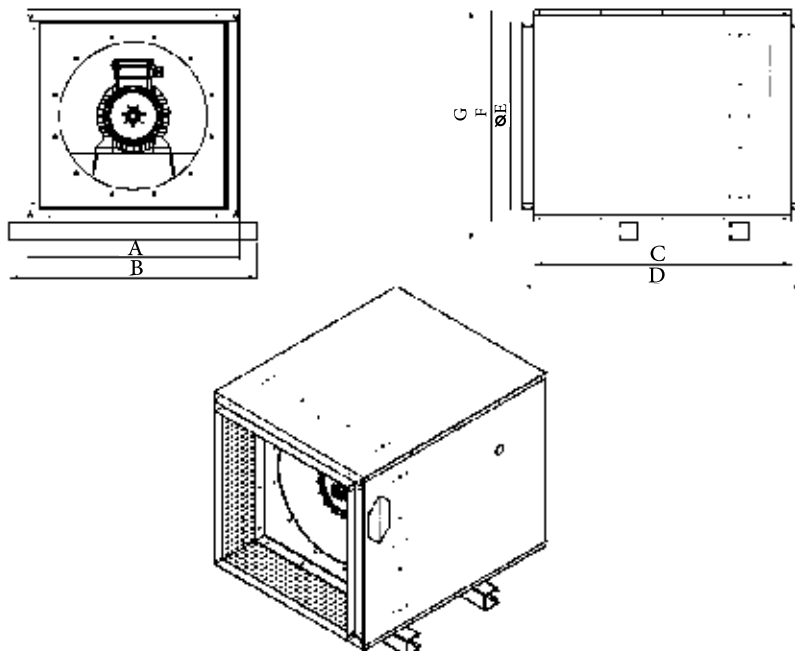


### **Features and Benefits**

- Full range from 400mm up to 1400mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- Perforated galvanized steel sheet inner skin.
- 50 mm rock-wool insulation.
- IP 67 external terminal box.
- IP 55 Electrical motors with F-class insulation.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- Operating temperature between -15 °C and 45°C.

MODEL	Diemsions(mm)						
	A	B	C	D	E	F	G
DAX-H 400	656	756	570	670	550	656	704
DAX-H 450	706	806	570	670	600	706	754
DAX-H 500	756	906	700	800	650	756	804
DAX-H 560/1	806	956	700	800	700	806	854
DAX-H 560/2	806	956	950	1050	700	806	854
DAX-H 630/1	906	1056	700	800	800	906	954
DAX-H 630/2	906	1056	1100	1200	800	906	984
DAX-H 710/1	956	1106	700	800	850	956	1004
DAX-H 710/2	956	1106	1100	1200	850	956	1034
DAX-H 710/3	956	1106	1400	1500	850	956	1054
DAX-H 800/1	1056	1206	700	800	950	1056	1104
DAX-H 800/2	1056	1206	1100	1200	950	1056	1134
DAX-H 800/3	1056	1206	1400	1500	950	1056	1154
DAX-H 900/1	1156	1306	700	800	1050	1156	1204
DAX-H 900/2	1156	1306	1100	1200	1050	1156	1234
DAX-H 900/3	1156	1306	1400	1500	1050	1156	1254
DAX-H 1000/1	1256	1456	700	800	1150	1256	1304
DAX-H 1000/2	1256	1456	1100	1200	1150	1256	1334
DAX-H 1000/3	1256	1456	1400	1500	1150	1256	1334
DAX-H 1120/1	1406	1606	950	1050	1300	1406	1484
DAX-H 1120/2	1406	1606	1400	1500	1300	1406	1504
DAX-H 1250/1	1556	1806	1100	1200	1450	1556	1634
DAX-H 1250/2	1556	1806	1600	1700	1450	1556	1634
DAX-H 1400/1	1755	2008	1100	1197	1653	1755	1855
DAX-H 1400/2	1755	2008	1750	1847	1653	1755	1855

*\* For technical selection please contact DYNFLOW team*



## DAX-S-CH HATCH TYPE AXIAL SMOKE EXHAUST FANS

*DYNFLOW DAX-S-CH Axial smoke exhaust fans with Casing Units are used in car parks, subways and airport ventilation projects besides general ventilation applications. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations. The hatch is opened automatically by linear motors in case of fire.*



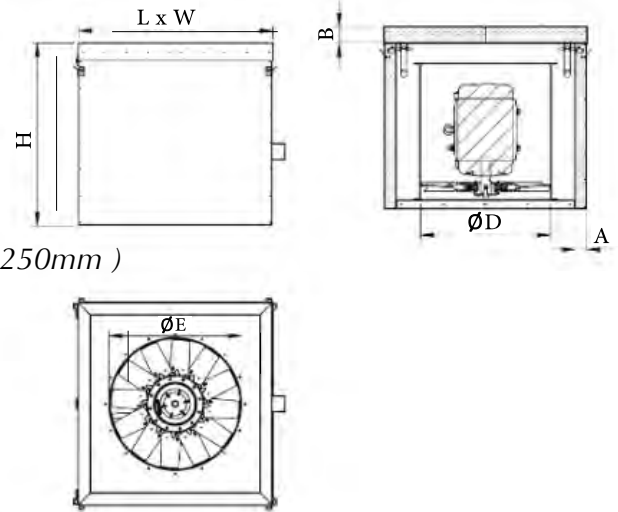
### **Features and Benefits**

- F300 certificate in comply with EN 12101-3 standard.
- Full range from 400mm up to 1250mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- Rock-wool insulated casing and hatch.
- Epoxy coated casing.
- IP 67 external terminal box.
- IP 55 Electrical motors with H-class insulation.
- Snow load – 500 Pa.
- Wind load – 1500 Pa.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- 300°C operating temperature for 2 hours.

## TECHNICAL SPECIFICATIONS

DAN - S - CH - 560-5/20-V2

- Motor Pole (2/4)
- Hub type ( V, E, N, C, O )
- Pitch angle
- Number of Blades
- Nominal diameter ( 400 - 1250mm )
- Casing with hatch
- Smoke exhaust fan
- Axial Fan



Fan Model	H (mm)	L (mm)	W (mm)	A (mm)	B (mm)	ØD (mm)	ØE (mm)
DAX-S-CH 400	1050	1039	1048	100	70	400	406
DAX-S-CH 450	1050	1039	1048	100	70	450	456
DAX-S-CH 500	1050	1039	1048	100	70	500	506
DAX-S-CH 560	1050	1039	1048	100	70	560	566
DAX-S-CH 630	1050	1039	1048	100	70	630	636
DAX-S-CH 710	1050	1200	1250	100	70	710	726
DAX-S-CH 800	1050	1200	1250	100	70	800	816
DAX-S-CH 900	1050	1450	1500	100	70	900	916
DAX-S-CH 1000	1050	1450	1500	100	70	1000	1006
DAX-S-CH 1120	1210	1580	1630	100	70	1120	1126
DAX-S-CH 1250	1310	1720	1770	100	70	1250	1256

## DAX-CH HATCH TYPE AXIAL EXHAUST FANS

DYNFLOW DAX-CH Axial exhaust fans with Casing Units are used in car parks, subways and airport ventilation projects besides general ventilation applications. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations. The hatch is opened automatically by linear motors in case of fire.

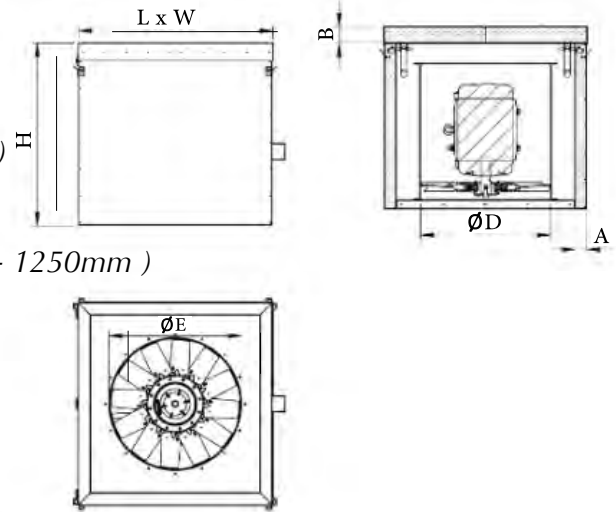


- Full range from 400mm up to 1250mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- Rock-wool insulated casing and hatch.
- Epoxy coated casing.
- IP 67 external terminal box.
- IP 55 Electrical motors with F-class insulation.
- Snow load – 500 Pa.
- Wind load – 1500 Pa.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- Operating temperature between -15°C and 45°C.

## TECHNICAL SPECIFICATIONS

DAX - CH - 560-5/20-V2

- Motor Pole (2/4)
- Hub type ( V, E, N, C, O )
- Pithch angle
- Number of Blades
- Nominal diameter ( 400 - 1250mm )
- Casing with hatch
- Axial Fan



Fan Model	H (mm)	L (mm)	W (mm)	A (mm)	B (mm)	ØD (mm)	ØE (mm)
DAX-CH 400	1050	1039	1048	100	70	400	406
DAX-CH 450	1050	1039	1048	100	70	450	456
DAX-CH 500	1050	1039	1048	100	70	500	506
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DAX-CH 630	1050	1039	1048	100	70	630	636
DAX-CH 710	1050	1200	1250	100	70	710	726
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DAX-CH 900	1050	1450	1500	100	70	900	916
DAX-CH 1000	1050	1450	1500	100	70	1000	1006
DAX-CH 1120	1210	1580	1630	100	70	1120	1126
DAX-CH 1250	1310	1720	1770	100	70	1250	1256

## DAX AXIAL PRESSURE DIFFERENTIAL FANS

DYNFLOW DAX Axial fans are used to pressurize the escape routes of people such as stair cases and elevator shaft by supplying fresh air. The best matching fans are supplied in wide range of options by selecting several hubs and adjustable blades combinations.

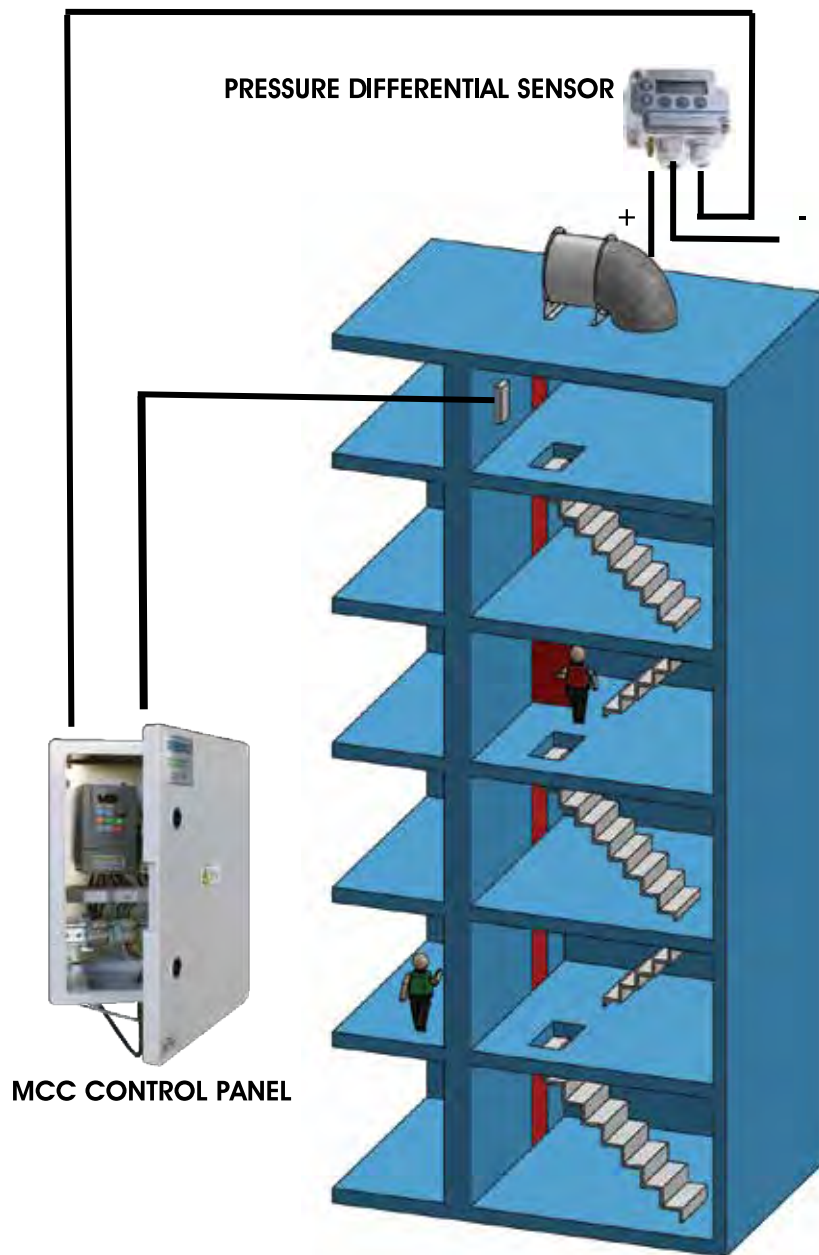


### Features and Benefits

- Full range from 315mm up to 1400mm diameters.
- Hot dip galvanized sheet metal casing.
- Cast aluminum adjustable blade angle impellers.
- Aerodynamic aluminum profile impellers allow high efficiency and low noise.
- Die cast aluminum alloy fan hubs.
- Optimum capacity obtained by best match of hub and adjustable blade combinations.
- IP 67 external terminal box.
- IP 55 Electrical motors with F-class insulation.
- 230 Volt-1 phase-50Hz and 400 Volt-3 phase-50 Hz motor types.
- Operating temperature between -15°C and 45°C.

### OPTIONS

- MCC Control Panel: It consists frequency convertor, electrical components and differential presostat in order to maintain desired set pressure value.
- Smoke Sensor: it prevents to supply fresh air in case of smoke contamination inside the scape zone.

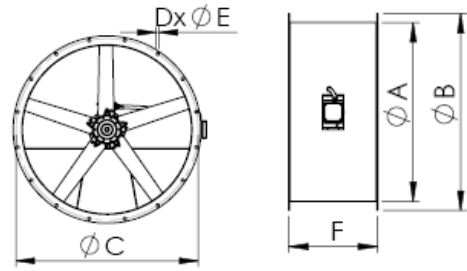
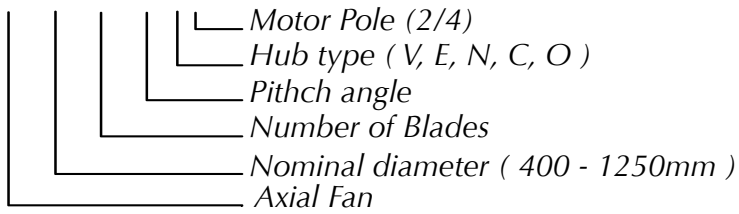


*Pressurization fans keep the stair cases, elevator shafts and escape routes safe by supplying fresh air in. Thus, the smoke and the harmful gases can't enter to the pressurized space. Therefore, people can escape safely.*



## TECHNICAL SPECIFICATIONS

DAX - 560-5/20-V2



FAN	Motor Frame	ØA	ØB	ØC	DxØE	F
400	80-90	400	475	450	8xØ12	400
450	80-90	450	475	500	8xØ12	400
	100					450
500	80-90	500	585	560	12xØ12	400
	100					450
560	80-90	560	645	620	12xØ12	400
	100-112					450
	132					570
630	80-90	630	715	690	12xØ12	400
	100-112					450
	132					570
	160					710
710	80-112	710	795	70	16xØ12	450
	132					570
	160					710
	180					790
800	200	800	885	860	16xØ12	840
	132					450
	160					570
	180					710
	200					790
900	80-112	900	1000	970	16xØ12	840
	132					450
	160					570
	180					710
1000	80-112	1000	1110	1070	16xØ15	790
	132					450
	160-180					590
	200					840
1120	100-132	1120	1240	1190	20xØ15	1100
	160-180					590
	200					790
	225					840
	250					1000
1250	100-132	1250	1380	1320	20xØ15	1100
	160-180					590
	200					790
	225					840
	250					1000
1400	132	1400	1540	1470	20xØ15	1100
	160-180					590
	200					790
	225					840
	250					1000
1600	132	1600	1750	1680	24xØ19	1100
	160-180					590
	200					790
	225					840
	250					1000