

## CENTRIFUGAL FAN



SINGLE INLET CENTRIFUGAL FAN



DOUBLE INLET CENTRIFUGAL FAN

Systemair's range of centrifugal fans offer the engineers the flexibility to choose the most suitable sizes and configurations to suit any site condition. With over 2000 variations of diameter, width and impeller type, specifications are virtually tailor-made to individual needs. We offer both single and double inlet forms and in three classes of construction to suit almost any applications.

There is a choice of eight impeller types, providing optimum performance to meet any duty. Casings are made of mild steel, welded and many are of semi-universal construction allowing the discharge angle to be modified to suit customer's requirements. Many additional features and ancillaries can be supplied on request, example; split casings, carbon steel and stainless steel impellers.

### CENTRIFUGAL FANS – TYPES OF BLADES

There are many different types of Centrifugal Fans covering air volumes from 50 CFM to 60,000 CFM and from 0.1 inches water gauge to 60 inches water gauge. Each application requires a fan with different characteristics, whether it be the blade design, the width of the casing or even the method of drive. By way of a guide as to which is the best for certain projects, we list below information that might assist the potential user.

#### PADDLE BLADES :

This type of fans is used for the conveying of dust, woods and paper refuse, cotton fly etc. Since the blade design prevents 'Build up' of waste materials, discharge velocities vary dependent upon what is being conveyed in the air-stream. Normally in the region of 1500-4000 feet per minute.

#### MULTIVANE OR FORWARD CURVED BLADES :

Used for general ventilation purposes – not good for dust, etc. Limited pressure characteristics. Normal discharge velocities 1000-2500 feet per minute.

#### BACKWARD CURVED OR BACKWARD INCLINED BLADES :

Non-overloading power characteristic suitable for very light dust applications (e.g. clean side of dust collector) where a good efficiency is required. Used for high pressure ventilation systems or where the system resistance could fluctuate. Normal discharge velocities 1800-3000 feet per minute.

#### AEROFOIL SECTION BLADES :

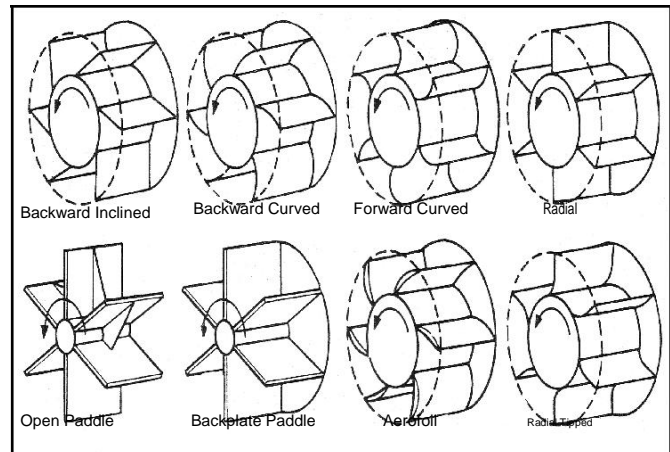
The most efficient of all centrifugal fans, ideally suited for general ventilation projects where there is no possibility of dust contamination. Recommended for high pressure ventilation systems or where the system resistance could fluctuate. Normal discharge velocities 1500-2800 feet per minute.

#### HIGH PRESSURE BLOWERS :

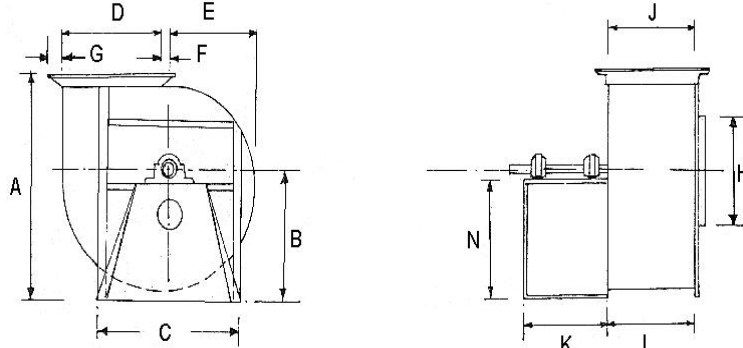
As their name suggests, these fans are supplied where the requirement is for high velocities, e.g. Air curtains, refuse conveying, etc. Normal discharge velocities 3000-6000 feet per minute.

#### SPECIAL NOTE :

Since Forward Curved and Paddle Blade fans have overloading power characteristic it is important the selected static pressure is achieved. Any reduction in the requirement could easily overload the motor.



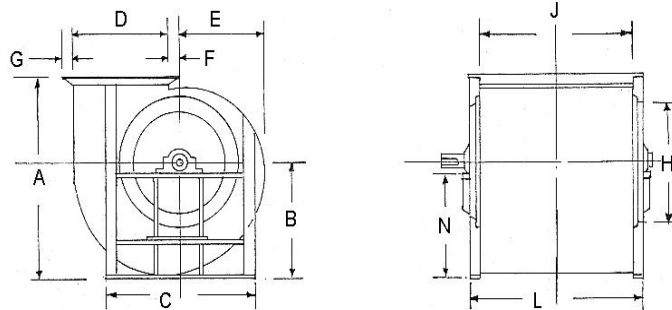
LEFT HAND ROTATION							RIGHT HAND ROTATION						
STANDARD DISCHARGE POSITION VIEW FROM DRIVE SIDE													



S.I.S.W. DIMENSIONS

DIMENSIONS IN MILLIMETERS

FAN SIZE	AS30	AS35	AS40	AS45	AS50	AS55	AS60	AS65	AS75	AS80	AS90	AS100	AS110	AS120	AS135	AS145	AS165	
SHAFT DIA.	CL. I	25	25	32	32	38	38	45	50	50	57	57	63.5	63.5	75	75	90	90
	CL. II	25	25	32	38	38	45	45	50	50	57	57	63.5	75	75	90	90	100
A	635	660	725	790	875	914.5	1033	1130	1245	1342	1496	1665	1837	2066	2218	2435	2705	
B	333.5	362	406.5	446.5	487.5	533	590	648	718	764	867	935	1055	1205	1281	1407	1568.5	
C	445	485	510	535	580	610	635	660	690	720	880	1020	1060	1120	1320	1370	1425	
D	308	340	375	409	457.5	498.5	556	602	672	746.2	820	905	1000	1105	1216	1346	1474	
E	260	296	311	341.5	386	422	470	517	570	613	695	770	848	937	1030	1143	1260	
F	24	26	30	35	38	39	50	50	56	63	67	76	83	92	102	111	127	
G	38	38	38	38	50	50	50	50	50	50	50	63	63	76	76	76	76	
H	353	387	427	427	521	566	328.5	690	759	840	920	1023	1120	1240	1365	1510	1670	
J	270	299	333	367	404	440	495	545	597	663	730	807	809	981	1090	1213	1335	
K	290	300	310	325	350	400	430	430	430	485	485	635	660	710	810	830	915	
L	270	299	333	367	404	440	495	545	497	663	730	807	890	981	1090	1213	1335	
N	296.5	325	385.5	398	439	478	535	593	655	694	797	873	975	1110	1186	1295	1456.5	



D.I.D.W. DIMENSIONS

DIMENSIONS IN MILLIMETERS

FAN SIZE	AW30	AW35	AW40	AW45	AW50	AW55	AW60	AW65	AW75	AW80	AW90	AW100	AW110	AW120	AW135	AW145	AW165
SHAFT DIA.	CL. I	31.75	38	38	38	38	38	50.8	50.8	50.8	50.8	50.8	63.5	63.5	63.5	76.2	90
	CL. II	38	38	38	38	50.8	50.8	50.8	57.15	57.15	63.5	63.5	76.2	76.2	76.2	88.8	100
A	635	660	725	790	875	914.5	1033	1130	1245	1342	1496	1665	1837	2066	2218	2435	2705
B	333.5	362	406.5	446.5	487.5	533	590	648	718	764	867	953	1055	1205	1281	1407	1568.5
C	533	564.4	604.4	654	703	806	868.5	930	999	1080	1160	1325	1422	1594	1719	1864	2024
D	292	323	354	393	438	481	539.5	587	649	713	790	870	965	1068.5	1178	1302	1438
E	260	296	311	341.5	386	422	470	517	570	613	635	770	848	937	1030	1143	1260
F	40	45	60	63	63	63	69	73	79	94	100	105	112	128	140	156	161
G	38	38	38	38	38	50	50	50	50	50	50	63	63	76	76	76	76
H	353	387	427	427	521	566	628.5	690	759	840	920	1023	1120	1240	1365	1510	1670
J	495	546	610	667	736	810	898.5	997	1095	1210	1338	1473.5	1630	1790	1987.5	2191	2445
K	38	38	38	38	38	50	50	50	50	50	50	63	63	76	76	76	76
L	571	622	686	734	812	910	998.5	1097	1195	1310	1438	1599.5	1756	1942	2139.5	2343	2597
N	240.5	313	357.5	397.5	424.5	470	527	585	648	684	787	873	975	1125	1201	1295	1443.5



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