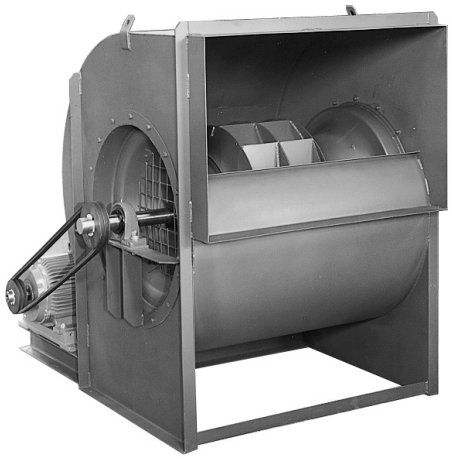




E

DESCRIPTION

The Centrifugal Fan range of backward-inclined laminar or aerofoil-section fans, encompasses both single-width and double-width units.
They feature high strength fully welded mild steel casings and each range is available in 20 sizes, extending from 305mm (12 inch) to 2035mm (80 inch) diameter.

Typical Applications

Designed for a wide range of supply or exhaust applications such as office buildings, shopping centres, hospitals and universities. The fans are capable of handling clean air to installations involving hot, toxic, noxious or explosive gases.

Features

- Casings are made of high strength fully welded mild steel.
- Finished in a durable prime coat of grey coloured zinc phosphate. Other finishes available.
- Choice of high performance backward-inclined laminar or aerofoil-section blades available.
- Impellers are a high strength welded construction.
- Wide range of performances available. See **Special Note**.
- Multi-speed motors can be supplied.
- Belt or direct-drive arrangements available.
- Speed-controllable using variable speed drives.
- Can be ordered to handle hot, toxic, noxious or explosive gases.

Construction

Fully welded mild steel casings.
Prime coat of grey, zinc phosphate is the standard finish.
Impellers are fully welded and are available as backward-inclined laminar(L) or aerofoil-section(AL) design.

Motors

Type - squirrel cage induction motors
Electricity supply - single or three-phase to suit a wide range of voltages and frequencies.
Bearings - ball or roller.
Motors with multi-speed windings or to suit Ex d, Ex e, Ex nA, Ex tD. or similar special needs can be fitted.

Internal Thermal Protection

Thermistors can be provided.

Testing

Air flow tests to BS848:Part 1 1980
Noise tests to AS1217-1972

Wiring Diagram

See page N-6, diagrams DD 1, 2, 3.

Special note

The quick-selection graphs on page *E-11* are designed to give a close indication of the fan size required to perform the specified duty. Detailed selections can be determined using the Fans by Fantech Product Selection Program, or by referring to our sales engineers.

ANCILLARY EQUIPMENT

Refer to the ancillary equipment list on pages *I-1* and *M-1*.

SUGGESTED SPECIFICATION

The Centrifugal Fans shall be of the SWSI or DWDI type as supplied by Fantech Pty Ltd.

The housings shall be of welded mild steel with a grey, zinc phosphate finish.

Impellers shall suit single-width or double-width arrangements as required and be backward-inclined laminar or aerofoil-section. Impellers shall be fully welded.

All fans shall be tested to BS848:Part 1 1980 for air flow and AS1217-1972 for noise.

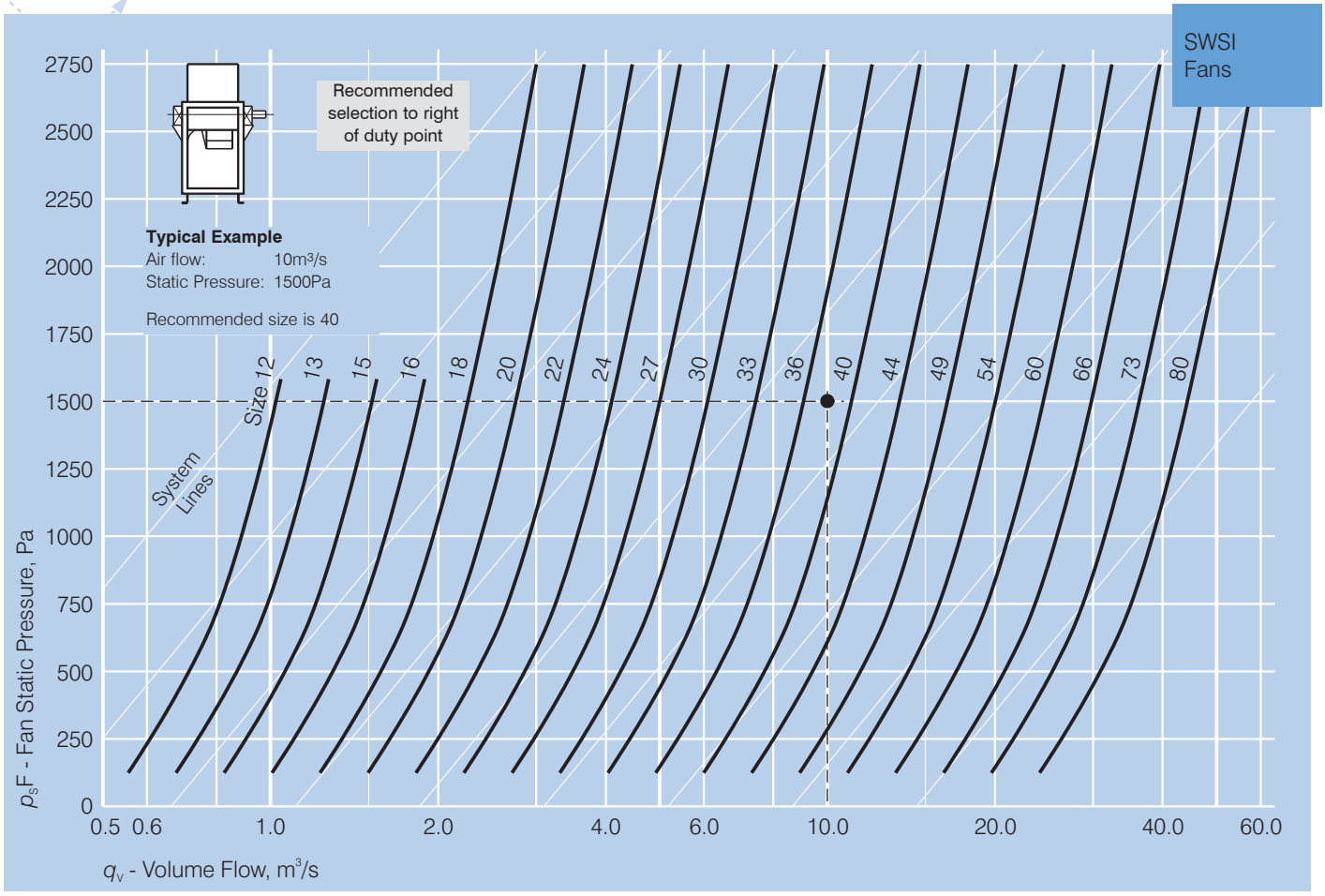
HOW TO ORDER

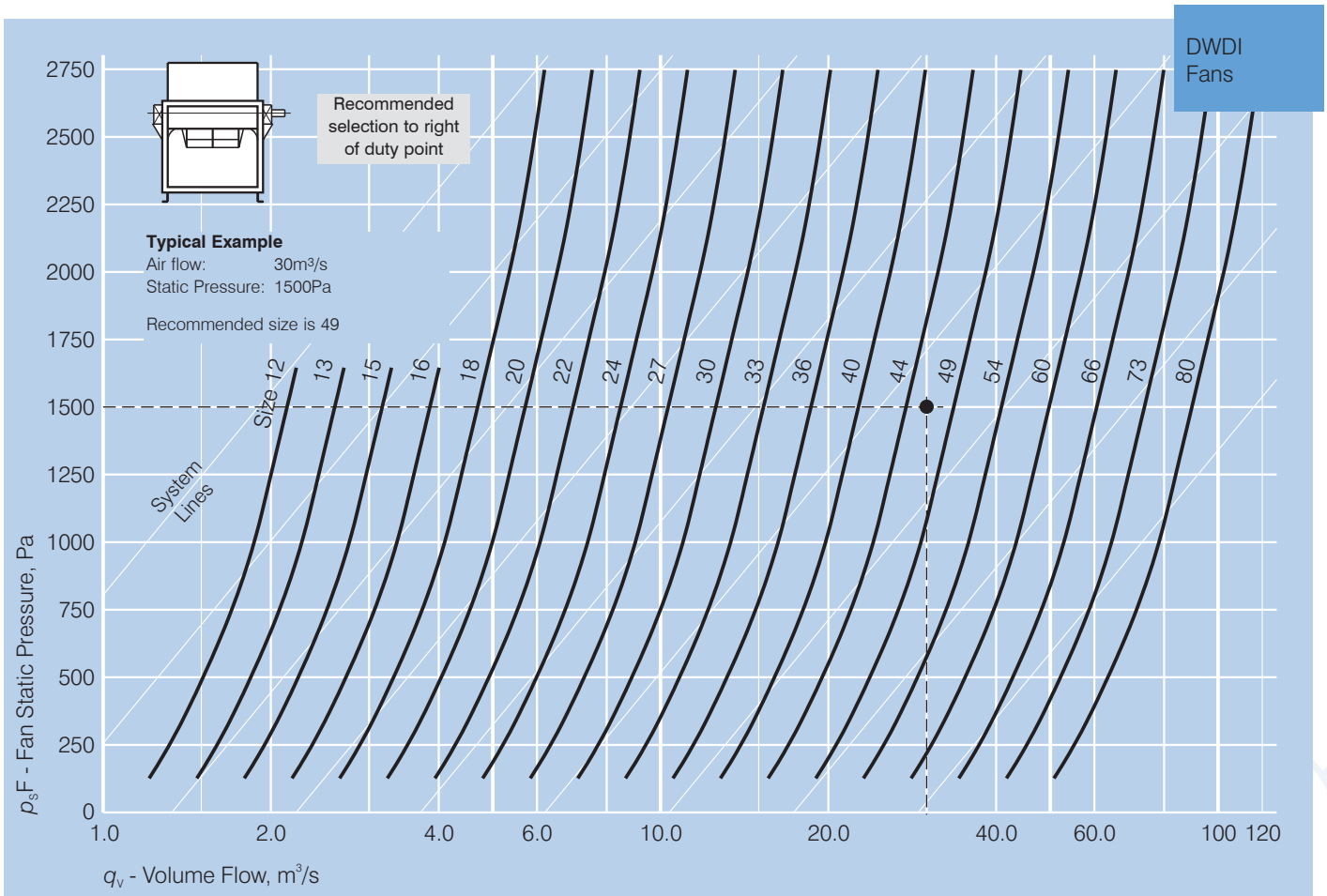
The following information is required before production can commence:

- Performance required
- Air temperature, if other than standard
- Fan size and type; e.g. SWSI or DWDI
- Impeller type; e.g backward-inclined laminar (L) or aerofoil-section (AL)
- Fan handing
- Discharge angle
- Position of the drive motor
- Degree of vibration isolation required
- Electricity supply
- Motor type; e.g. standard motor or a motor to suit Ex d, Ex e, Ex nA, Ex tD, or other special specification
- Ancillary equipment. Refer to pages *I-1* and *M-1*
- Finish, if other than standard
- Any special identification markings

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QUICK SELECTION CURVES - SWSI & DWDI FANS

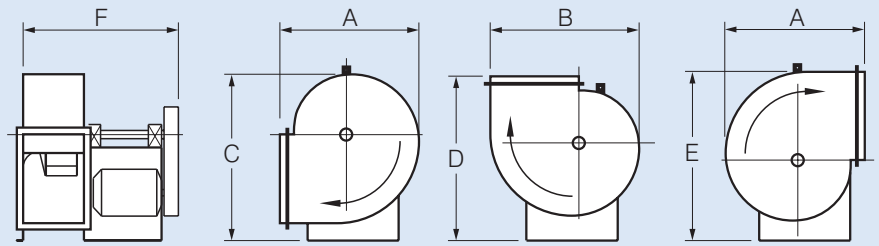




E

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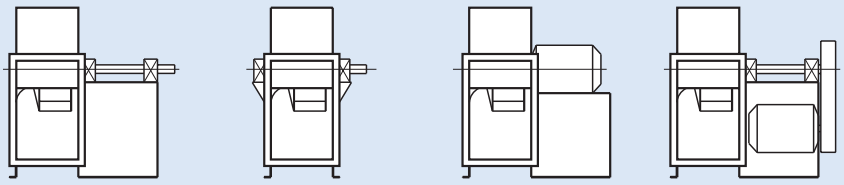
BLOCK DIMENSIONS & WEIGHTS - SWSI FANS



Model Number AL../L..	Dimensions, mm A	B	C	D	E	F	Case only* weight kg
12	610	590	725	695	795	650	65
13	665	650	758	750	865	695	75
15	730	725	845	805	930	740	85
16	795	795	915	870	1010	795	90
18	865	880	1005	950	1105	850	95
20	945	965	1085	1030	1200	920	115
22	1040	1075	1110	1130	1320	1035	155
24	1145	1180	1300	1235	1440	1125	180
27	1200	1295	1420	1300	1575	1230	240
30	1375	1435	1560	1480	1735	1395	315
33	1505	1580	1705	1615	1895	1530	325
36	1655	1740	1890	1715	1865	1580	375
40	1795	1920	2070	1845	2040	1775	565
44	2010	2120	2275	2070	2250	1900	805
49	2200	2340	2490	2265	2475	2095	895
54	2430	2590	2740	2485	2720	2235	1125
60	2680	2860	3020	2745	3000	2500	1470
66	2935	3150	3310	2990	3295	2625	O/A
73	3290	3475	3640	3355	3615	2850	O/A
80	3630	3840	4035	3720	4010	3345	O/A

* Add the motor weight to get the approx. total weight. Motor weights are shown on page *O-11*. Dimensions shown are a guide only, certified drawings are available on request

Drive Arrangements - SW & DW Fans

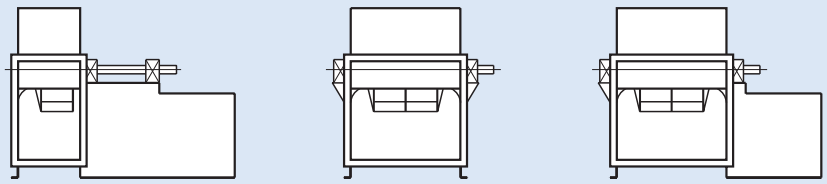


SWSI ARRGT. 1
Rotor overhangs bearing pedestal. Can be supplied with integral motor base.

SWSI ARRGT. 3
Rotor supported between bearings. Not recommended below size 30. Can be supplied with integral motor base.

SWSI ARRGT. 4
Direct drive, rotor overhangs pedestal, and is located directly onto motor shaft.

SWSI ARRGT. 9
Arrgt. 1 fan with motor located on bearing pedestal.



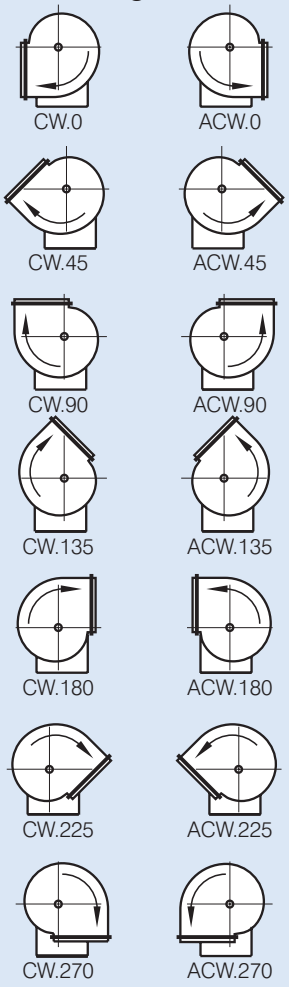
SWSI ARRGT. 8
Direct drive. Arrgt. 1 with extended pedestal for motor and drive coupling.

DWDI ARRGT. 3
Rotor supported by bearings in both inlets. Can be supplied with integral motor base.

DWDI ARRGT. 7
Direct drive. Arrgt. 3 DWDI with pedestal for motor and drive coupling.

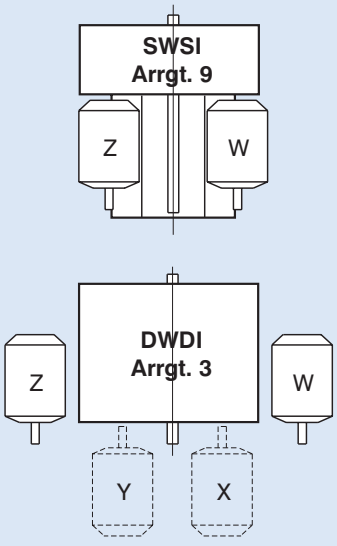
Handling and dimension data on these tables are based on Arrangement 9 for SWSI and Arrangement 3 for DWDI.

Direction of Rotation & Discharge Position



Direction of rotation is determined from drive side for both SWSI & DWDI fans

Optional Motor Positions , Belt Drive

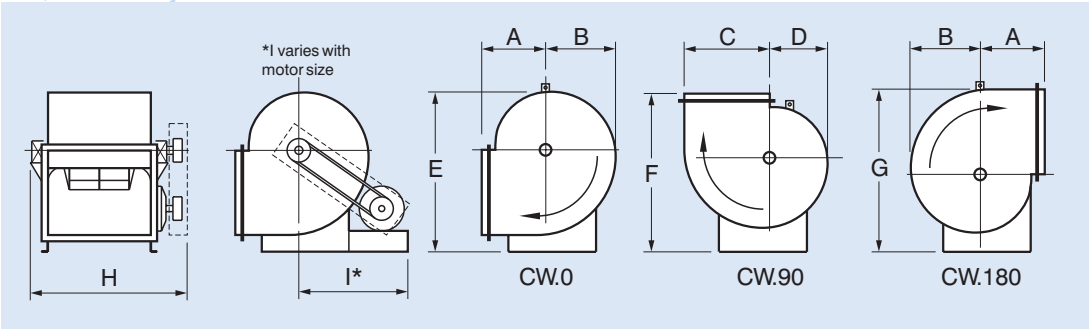


Motor positions Z & W are standard
Additional price for positions Y & X

The designated motor positions never change, regardless of the direction of rotation.

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BLOCK DIMENSIONS & WEIGHTS - DWDI FANS



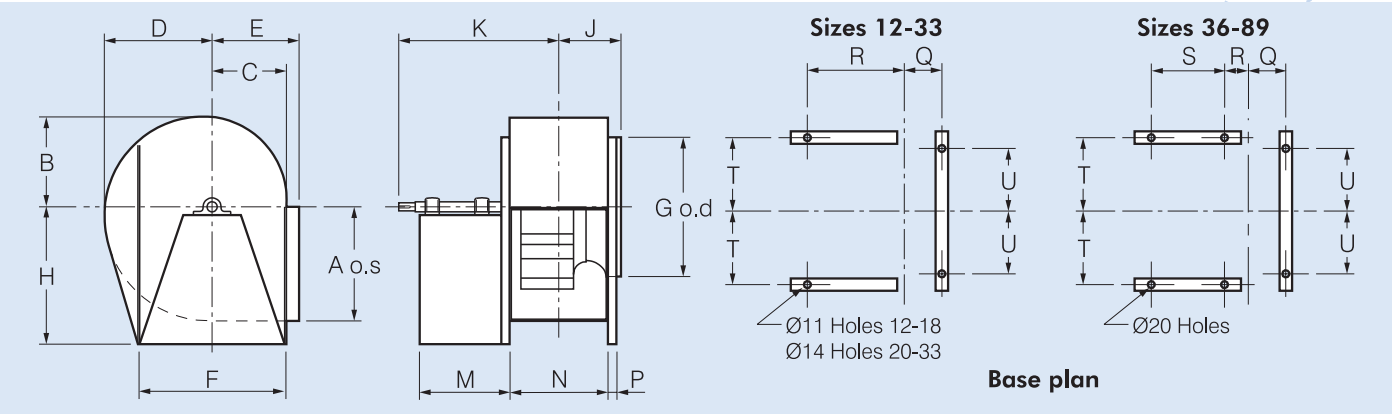
The dimensions shown are to be used as a guide only, certified drawings are available upon request.

Model Number AL../L..	Dimensions, mm A	B	C	D	E	F	G	H	Motor kW (4 pole motor)	I max.*	Case only weight kg**
12	300	310	330	260	725	695	795	800	0.55 - 1.5	640	80
									2.2	740	
13	320	345	365	285	785	750	865	850	0.55 - 1.5	665	95
									2.2	765	
15	350	380	405	320	845	805	930	905	0.55 - 1.5	690	140
									2.2	790	
16	375	420	445	350	915	870	1010	960	0.55 - 2.2	790	150
									4.0 - 7.5	840	
18	405	460	490	390	1005	950	1105	1045	2.2 - 3.0	845	168
									4.0 - 7.5	870	
20	440	505	540	425	1085	1030	1200	1120	2.2 - 7.5	925	210
									11.0	1050	
22	480	560	600	475	1110	1130	1320	1245	2.2 - 7.5	960	250
									11.0	1085	
24	525	620	660	520	1300	1235	1440	1315	2.2 - 7.5	1105	290
									11.0	1130	
27	520	680	725	570	1420	1300	1575	1420	2.2 - 7.5	1075	325
									11.0 - 22.0	1175	
30	620	755	805	630	1560	1480	1735	1550	2.2 - 7.5	1100	475
									11.0 - 22.0	1225	
									30.0	1475	
33	675	830	885	695	1705	1615	1895	1680	2.2 - 7.5	1180	500
									11.0 - 22.0	1280	
									30.0	1530	
36	735	920	980	760	1890	1715	1865	1825	2.2 - 7.5	1235	660
									11.0 - 22.0	1385	
									30.0 - 37.0	1635	
40	780	1015	1080	840	2070	1845	2040	1990	5.5 - 7.5	1300	825
									11.0 - 22.0	1450	
									30.0 - 45.0	1650	
44	890	1120	1190	930	2275	2070	2250	2245	11.0 - 22.0	1510	1015
									30.0 - 45.0	1760	
49	970	1230	1315	1025	2490	2265	2475	2425	18.5 - 22.0	1600	1300
									30.0 - 45.0	1850	
54	1065	1365	1455	1135	2740	2485	2720	2635	18.5 - 22.0	1645	1640
									30.0 - 45.0	1945	
60	1170	1510	1610	1250	3020	2745	3000	2865	30.0 - 45.0	1995	1920
									55.0	2195	
66	1275	1660	1775	1375	3310	2990	3295	3105	30.0 - 45.0	2095	O/A
									55.0	2295	
73	1465	1825	1955	1520	3640	3355	3615	3490	30.0 - 45.0	2220	O/A
									55.0	2420	
80	1600	2030	2160	1680	4035	3720	4010	3800	30.0 - 45.0	2300	O/A
									55.0	2500	

** Add the motor weight to get the approximate total weight. Motor weights are shown on page *O-11*.

E

DIMENSIONS - SWSI FAN ARRANGEMENTS 1&9



Sizes 12-33

Fan Size	Dimensions, mm A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	T	U
12	330	260	215	310	300	430	350	395	175	455	250	250	40	145	335	195	150
13	365	285	235	345	320	474	380	430	188	488	270	275	40	160	370	215	175
15	405	320	265	380	350	530	420	455	200	520	290	300	40	170	400	245	200
16	445	350	290	420	375	580	470	495	218	558	310	335	40	188	440	270	225
18	490	390	320	460	405	640	515	545	235	605	330	370	40	205	475	300	255
20	540	425	350	505	440	700	560	590	253	658	365	405	50	230	520	325	285
22	600	475	390	560	480	770	615	650	288	735	420	450	50	250	595	360	325
24	660	520	430	620	525	854	690	710	311	830	465	495	50	275	665	402	365
27	725	570	475	680	520	944	755	780	350	892	505	548	65	305	710	440	410
30	805	630	525	755	620	1044	830	860	375	960	570	600	65	332	805	490	460
33	885	695	580	830	675	1160	910	940	405	1085	635	666	65	365	905	547	515

Sizes 36-89

Fan Size	Dimensions, mm A	B	C	D	E	F	G	J	K	M	N	P	Q	R	S	T	U
36	980	760	640	920	735	1270	1000	442	1100	620	734	75	405	480	435	598	550
40	1080	840	705	1015	780	1400	1205	510	1230	705	820	75	448	520	520	662	615
44	1190	930	780	1120	890	1520	1315	552	1315	745	905	75	490	560	560	723	675
49	1315	1025	860	1230	970	1700	1435	650	1410	795	1000	75	540	610	610	813	765
54	1455	1135	950	1365	1065	1885	1580	700	1500	835	1100	75	590	660	650	906	855
60	1610	1250	1050	1510	1170	2085	1740	710	1665	935	1215	75	645	715	750	743	925
66	1775	1375	1155	1660	1275	1680	1890	775	1775	975	1345	75	710	780	790	803	1030
73	1955	1520	1280	1825	1465	1880	2090	890	1900	1015	1485	75	780	852	830	903	1155
80	2160	1680	1415	2030	1600	2060	2290	975	1315	1345	1645	100	875	970	1095	980	1235
89	2480	1850	1560	2235	1755	2200	2520	1055	2535	1485	1805	100	950	1050	1235	1050	1380

Fan Size	Dimensions, mm H CW0 CW45 ACW0 ACW45	CW90 ACW90	CW135 ACW135	CW180 ACW180	CW225 ACW225	CW270 ACW270
36	1060	980	890	815	750	635
40	1160	1065	965	890	815	700
44	1275	1180	1065	990	900	775
49	1395	1295	1170	1090	990	935
54	1535	1420	1295	1195	1090	945
60	1700	1575	1420	1320	1195	1045
66	1865	1715	1550	1450	1295	1150
73	2050	1890	1715	1590	1435	1270
80	2285	2120	1905	1780	1625	1405
89	2495	2325	2095	1955	1755	1545

The handing illustrated is anti-clockwise, discharge angle 0° (ACW0). Other positions shown on the fan handing page can be determined by rotating the case about the shaft centre.

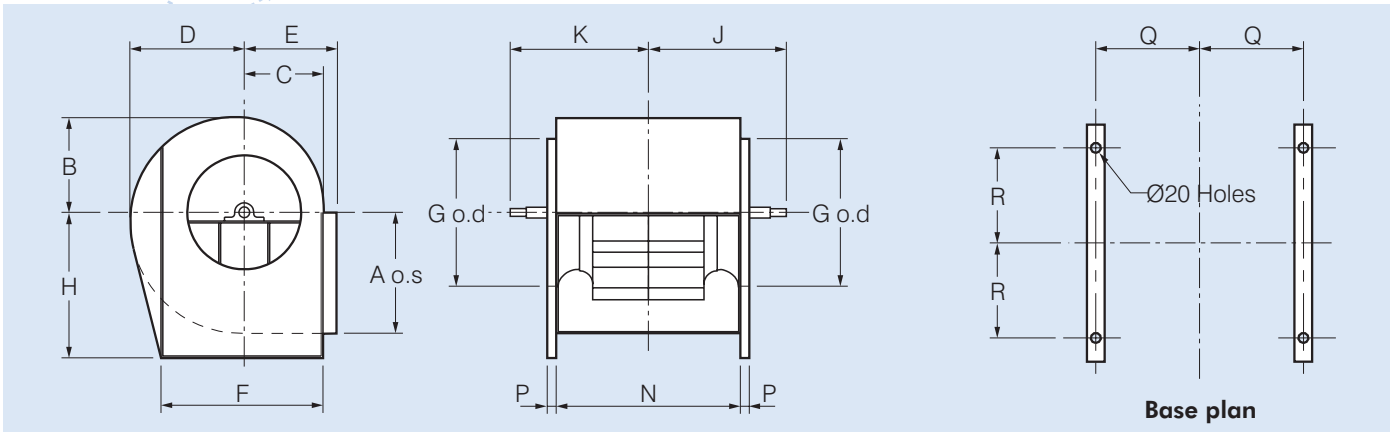
The drive motor (not shown) would be mounted on the bearing pedestal for Arrangement 9. For Arrangement 1, motor would be mounted on a channel frame attached to the fan base. See fan handing page for motor positions available.

Certified drawings are available on request.

For any arrangements not shown, refer to Fantech.

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DIMENSIONS - DWDI FAN ARRANGEMENT 3



Sizes 12-33

Fan Size	Dimensions, mm A	B	C	D	E	F	G	H	J	K	N	P	Q	R
12	330	260	215	310	300	430	350	395	350	420	495	40	268	175
13	365	285	235	345	320	474	380	430	375	445	545	40	293	197
15	405	320	265	380	350	530	420	455	405	475	605	40	223	225
16	445	350	290	420	375	580	470	495	435	505	665	40	353	250
18	490	390	320	460	405	640	515	545	470	540	735	40	388	280
20	540	425	350	505	440	700	560	590	520	590	805	50	428	300
22	600	475	390	560	480	770	615	650	570	640	900	50	475	335
24	660	520	430	620	525	854	690	710	615	685	985	50	518	377
27	725	570	475	680	520	944	755	780	665	720	1090	65	578	407
30	805	630	525	755	620	1044	830	860	715	815	1200	65	633	457
33	885	695	580	830	675	1160	910	940	780	880	1330	65	698	515

Sizes 36-89

Fan Size	Dimensions, mm A	B	C	D	E	F	G	J	K	N	P
36	980	760	640	920	735	1270	1000	850	950	1470	75
40	1080	840	705	1015	780	1400	1205	910	1030	1590	75
44	1190	930	780	1120	890	1520	1315	1000	1120	1795	75
49	1315	1025	860	1230	970	1700	1435	1100	1220	1975	75
54	1455	1135	950	1365	1065	1885	1580	1215	1340	2185	75
60	1610	1250	1050	1510	1170	2085	1740	1330	1455	2415	75
66	1775	1375	1155	1660	1275	2290	1890	1450	1575	2655	75
73	1955	1520	1280	1825	1465	2540	2090	1620	1770	2940	75
80	2160	1680	1415	2030	1600	2700	2290	1775	1925	3250	100
89	2480	1850	1560	2235	1755	3060	2520	1945	2095	3585	100

Fan Size	Dimensions, mm H CW0 CW45 ACW0 ACW45	CW90 ACW90	CW135 ACW135	CW180 ACW180	CW225 ACW225	CW270 ACW 270	Q	R
36	1060	980	890	815	750	635	775	550
40	1160	1065	965	890	815	700	835	615
44	1275	1180	1065	990	900	775	935	675
49	1395	1295	1170	1090	990	935	1025	765
54	1535	1420	1295	1195	1090	945	1130	855
60	1700	1575	1420	1320	1195	1045	1245	925
66	1865	1715	1550	1450	1295	1150	1365	1030
73	2050	1890	1715	1590	1435	1270	1510	1155
80	2285	2120	1905	1780	1625	1405	1675	1235
89	2495	2325	2095	1955	1755	1545	1845	1380

The handing illustrated is anti-clockwise, discharge angle 0° (ACW0). Other positions shown on the fan handing page can be determined by rotating the case about the shaft centre.

The drive motor (not shown) would be mounted on a channel frame attached to the fan base. See fan handing page for motor positions available.

Certified drawings are available on request.

For any arrangements not shown, refer to Fantech.

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