

YFBCSO

Backward Curved Steel Wheel Single-inlet Centrifugal Fan-Type O

To provide the most reliable and user-friendly air movement & control and air conditioning service.



Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.

Volume to 190,600m³/h, Static pressures to 10,940Pa

SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

Add: No. 55 Qingneng Road, Waigang Town, Jiading District, Shanghai
P.C: 201806
Tel: 86 21 39185688
Toll free number: 400 821 3316
Fax: 86 21 69168759
Http: //www.infinair.com

Process Expert Series Product

- High volume , reliability and low noise
- Balancing level up to G4.0
- Fully welded, high strength and security
- Temperature : -40~300°C
- New energy-saving product

G4.0

Company Profile

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and International Air Movement and Control Association (AMCA), the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.



Laboratory Introduction

● Following methods are used to increase Infinair aerodynamic laboratory's test accuracy.

- (1) Strictly following AMCA-210 standards to design and fabricate
 - (2) Traditional Pitot tube method is replaced by high precision nozzle matrix to increase accuracy.
 - (3) State of the art instruments and equipments are widely used in the lab.
 - (4) Test instruments are strictly calibrated, the calibration is repeated in time.
- The lab assures INFINAIR is capable to test different product design, increase the accuracy and liability of products, and become a good reason why you trust INFINAIR.



Backward Curved Steel Wheel-Type O



Optimized design

The fan adopts advanced technology. Design of backward curved centrifugal wheel is optimized by means of CFD hydro-field simulating. The design is more accordant with the aerodynamic characteristics, high efficiency, and stable airflow

Advanced process

Steel plasma cutting, precise positioning jig and all-welded technique are adopted for the blade to ensure smoothness of the margin of the blade. The welding angle is accurate, the whole blade is with strong strength, and the stress is evenly distributed during long-time high-speed operation. The operation is stable and reliable

High balancing level

Each wheel is subjected to dynamic balance test. We insist to the balancing level of G4.0 (G6.3 for the same type of products at home and abroad). Long-term quiet and stable running of the fan is ensured fundamentally.

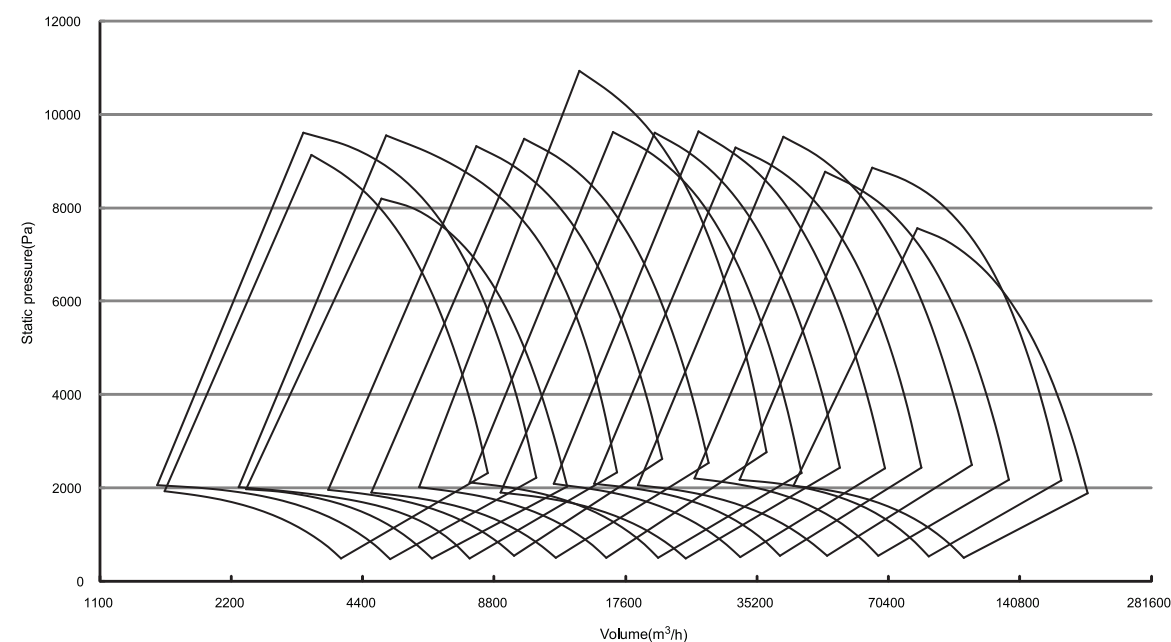
High-efficiency range

The wheel has a stable and smooth aerodynamic performance curve and owns a wide range of high efficiency working area which can efficiently avoid fan performance decrease caused by the deviation of the working point

Non-overload

The series wheel exist a peak value of shaft power, when the motor is selected according to the power combined with the margin factor of motor power, the fan shaft power will not exceed the motor rated power on no matter what operation point of the stable working range the fan run, then the clients can use it at ease.

Performance interval

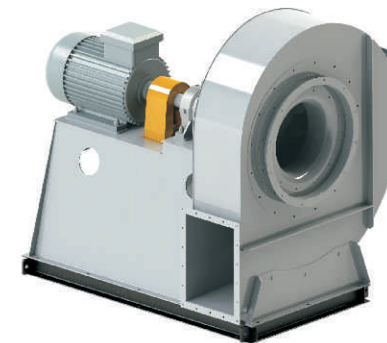


Product features



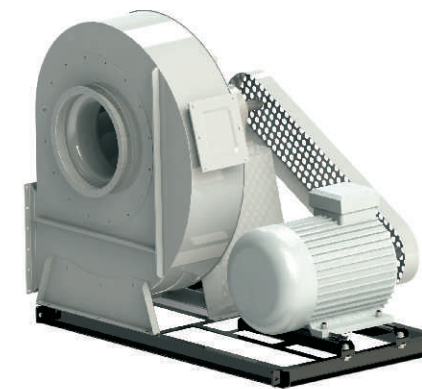
High reliability

- To be adopted FEA-aided design for enhancing the reliability of structure
- Scroll and wheel with high strength and no leakage characteristics are all-steel continuous welded to improve operation safely
- To be vibration tested before the fan leave the factory to achieve the requirements of long-term stable and reliable operation
- Fan shaft is subjected to finish turning & hardening and tempering. Maximum load surpasses 35% of limit speed to ensure the long-term continuous operation of the security
- Bearing seal can be lubricated. Service life more than L10:80000 hours to ensure the reliability of long-term continuous operation



High efficiency

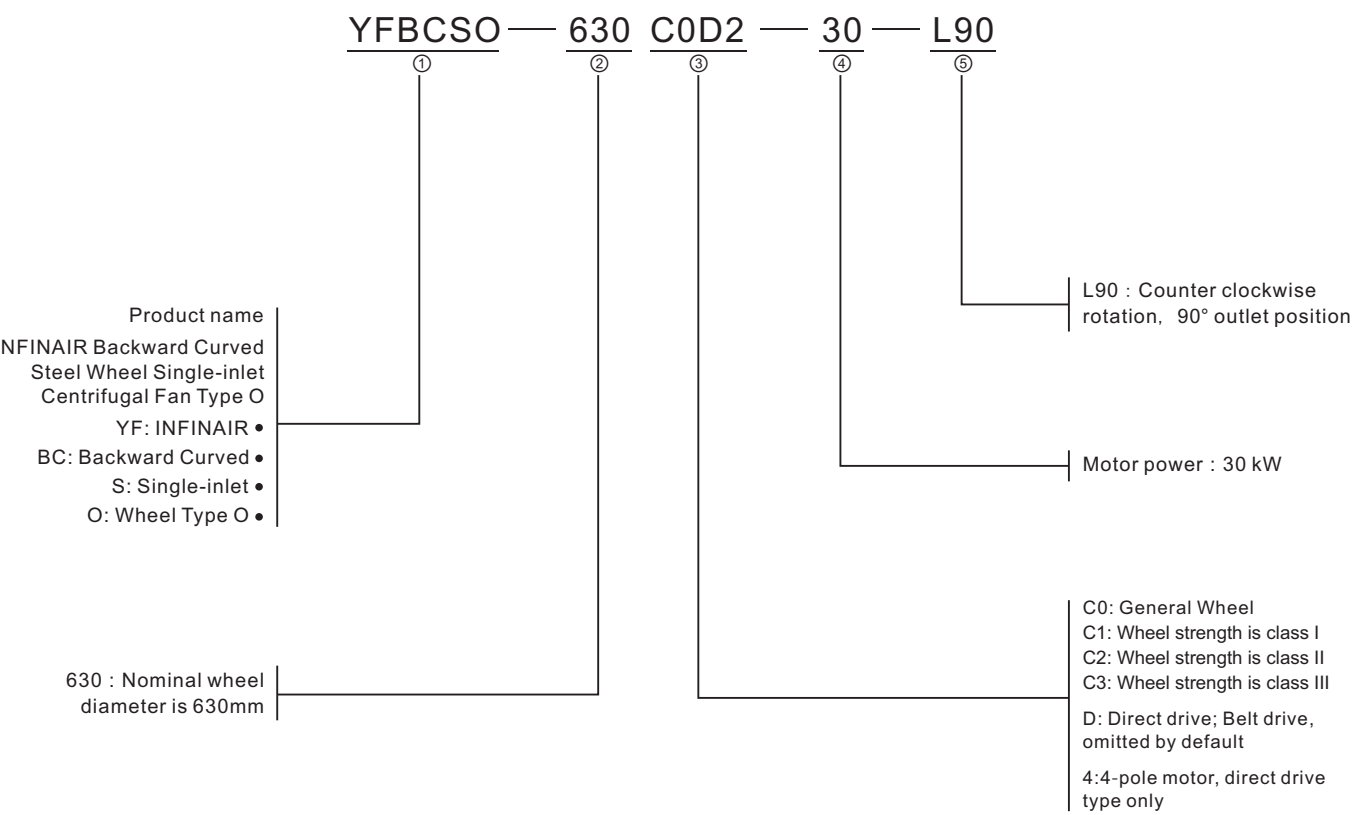
- Backward curved centrifugal wheel with high efficiency wide to avoid performance degradation caused by changes in working point
- Venturi inlet matched front disc precisely to avoid turbulent flow and air leakage, so that the air flow more smoothly to improve aerodynamic performance
- Optimized design repeatedly of CFD flow field simulation to ensure aerodynamic performance complied with the flow field characteristics
- Excellent aerodynamic performance, efficiency up to 86%



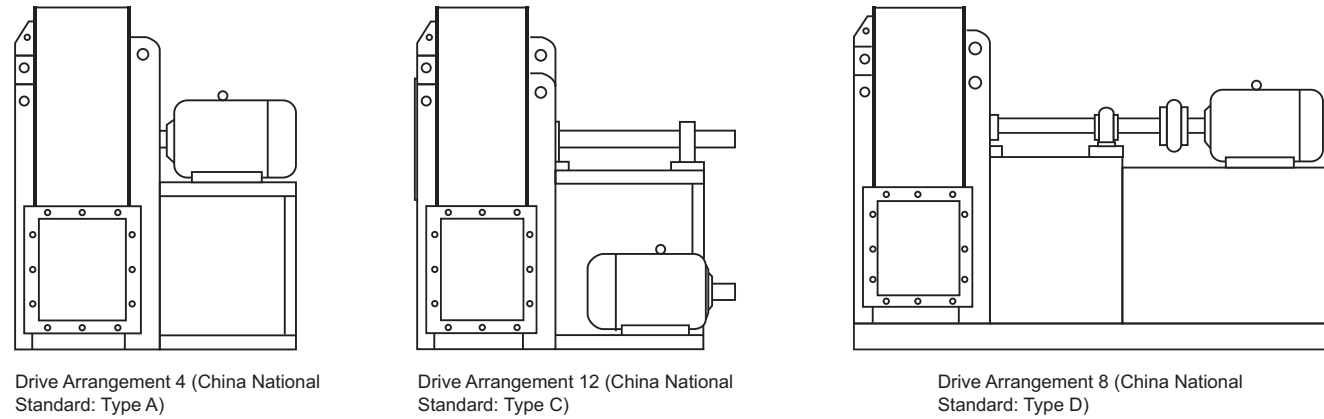
Convenience

- Flexible allocation of multi-drive type
- Standard accessories for normal use
- Accessories completely to meet all kinds of application requirements

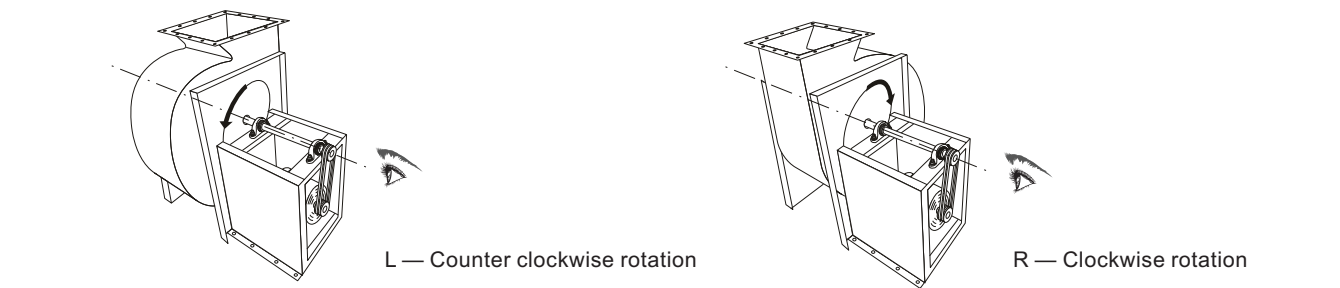
Naming convention



Drive arrangements for fans



Designation for rotation



Note: The rotation is identified from the view of fan drive (as shown in the above figure)

Designation of outlet position

L0°	L45°	L90°	L135°	L180°
R0°	R45°	R90°	R135°	R180°

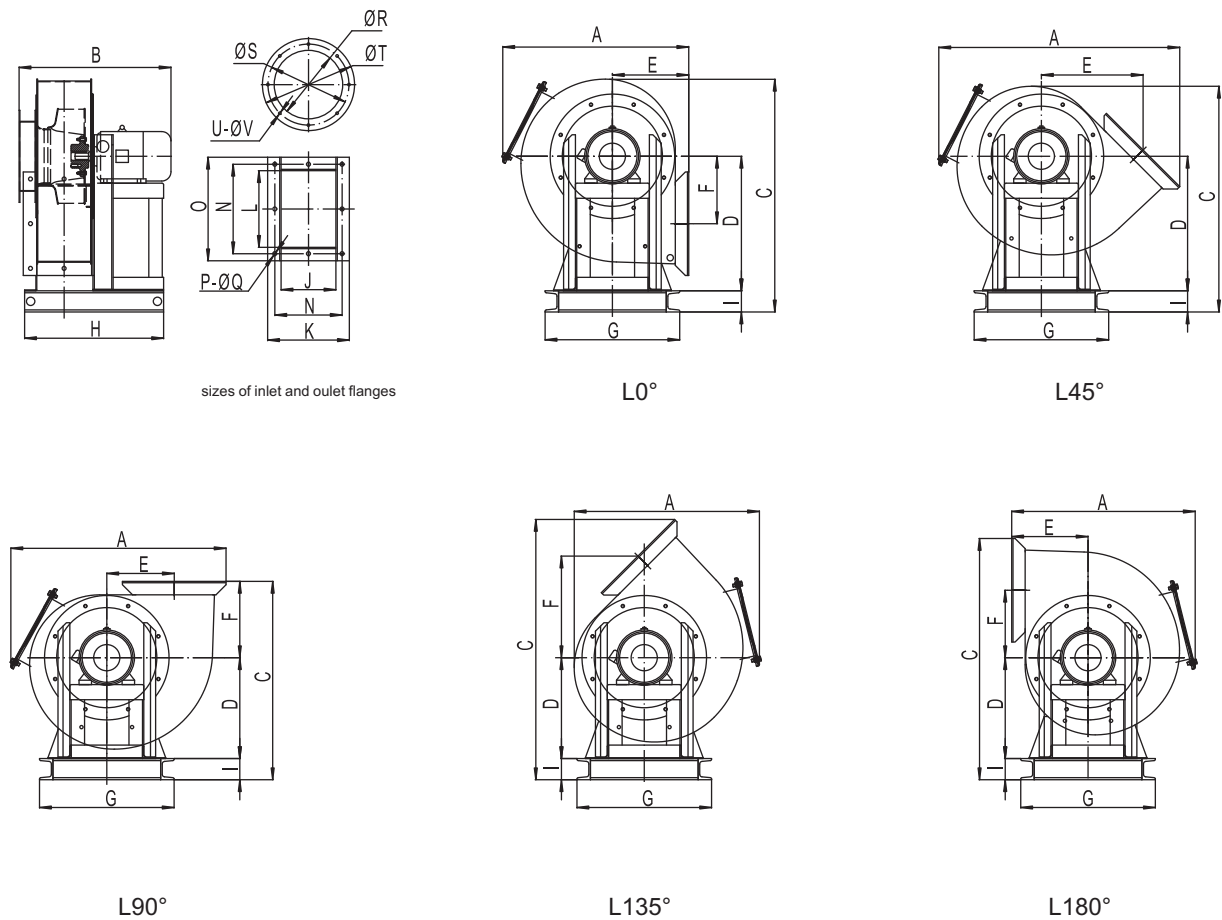
INFINAIR® standard	L	L0	L45	L90	L135	L180
China national standard	L	L0°	L45°	L90°	L135°	L180°
ISO standard	LG	LG 270	LG 315	LG 0	LG 45	LG 90
AMCA standard	CCW	CCW270	CCW315	CCW360	CCW 45	CCW 90

INFINAIR® standard	R	R0	R45	R90	R135	R180
China national standard	R	R0°	R45°	R90°	R135°	R180°
ISO standard	RD	RD 270	RD 315	RD 0	RD 45	RD 90
AMCA standard	CW	CW 270	CW 315	CW 360	CW 45	CW 90

Examples of Naming, Drive Arrangements, Rotation Direction, Outlet position:

- YFBCSO-560C0-5.5-R0
- Name meaning: centrifugal wheel with backward curved blades, Single-inlet, centrifugal fan Type O, Nominal wheel diameter is 560mm, belt drive, 5.5kW motor.
 - Drive arrangements: A12 (China National Standard: C Type)
 - Selection of rotation direction: R indicates right-handed rotation (clockwise).
 - Selection of outlet position: R0 indicates that 0 degree is selected for outlet position (China National Standard: right 0, ISO Standard: Rd270, AMCA Standard: Cw270)

Outline and Installation Dimensions of YFBCSO-400~1400



sizes of inlet and outlet flanges

Note: drawing in R rotating direction and drawing in L rotating direction are distributed in the form of mirror image.

L0°/R0°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	575	735	885	500	301	319.5	503	550	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	675	822	985	560	333	358	555	600	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	805	898	1074	610	365	394	722	650	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	865	1013	1201	670	400	435	755	700	80	399	504	565	669	462	628	14	12	575	629	665	12	10
YFBCSO630	1020	1123	1334	750	450	492.5	933	800	80	449	554	635	739	510	696	22	12	640	698	730	12	10
YFBCSO710	1095	1251	1498	850	500	558	996	900	80	509	614	716	820	575	770	24	12	720	775	810	16	12
YFBCSO800	1465	1387	1683	950	560	625	1233	1000	100	570	702	807	938	648	875	26	12	810	861	900	16	12
YFBCSO900	1090	1553	1915	1100	630	705	1417	1100	100	641	773	909	1040	714	976	28	14	900	958	1000	16	12
YFBCSO1000	1220	1728	2127	1200	710	790	1115	1200	126	712	844	1008	1139	784	1080	32	14	1010	1067	1110	24	12
YFBCSO1120	1460	1937	2376	1350	800	890	1272	1350	126	798	946	1130	1276	882	1210	34	14	1140	1200	1240	24	12
YFBCSO1250	1675	2167	2642	1500	900	1000	1488	1500	126	890	1038	1261	1407	976	1342	38	18	1280	1337	1380	24	12
YFBCSO1400	1880	2388	2865	1600	995	1112	1666	1760	140	998	1166	1415	1581	1090	1500	44	18	1435	1491	1535	32	12

L45°/R45°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	575	961	854	500	439	-	503	550	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	675	1073	950	560	489	-	555	600	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	805	1174	1036	610	537	-	722	650	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	865	1316	1151	670	590	-	755	700	80	399	504	565	669	462	628	14	12	575	629	665	12	10
YFBCSO630	1020	1462	1281	750	666	-	933	800	80	449	554	635	739	510	696	22	12	640	698	730	12	10
YFBCSO710	1095	1631	1438	850	748	-	996	900	80	509	614	716	820	575	770	24	12	720	775	810	16	12
YFBCSO800	1465	1809	1616	950	838	-	1233	1000	100	570	702	807	938	648	875	26	12	810	861	900	16	12
YFBCSO900	1090	2034	1841	1100	944	-	1417	1100	100	641	773	909	1040	714	976	28	14	900	958	1000	16	12
YFBCSO1000	1220	2304	2048	1200	1061	-	1115	1200	126	712	844	1008	1139	784	1080	32	14	1010	1067	1110	24	12
YFBCSO1120	1460	2548	2288	1350	1195	-	1272	1350	126	798	946	1130	1276	882	1210	34	14	1140	1200	1240	24	12
YFBCSO1250	1675	2847	2546	1500	1344	-	1488	1500	126	890	1038	1261	1407	976	1342	38	18	1280	1337	1380	24	12
YFBCSO1400	1880	3143	2760	1600	1490	-	1666	1760	140	998	1166	1415	1581	1090	1500	44	18	1435	1491	1535	32	12

L90°/R90°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	575	863	764	400	319.5	301	503	550	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	675	965	846	450	358	333	555	600	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	805	1057	928	500	394	365	722	650	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	865	1176	1030	550	435	400	755	700	80	399	504	565	669	462	628	14	12	575	629	665	12	10
YFBCSO630	1020	1307	1150	620	492.5	450	933	800	80	449	554	635	739	510	696	22	12	640	698	730	12	10
YFBCSO710	1095	1460	1280	700	558	500	996	900	80	509	614	716	820	575	770	24	12	720	775	810	16	12
YFBCSO800	1465	1619	1460	800	625	560	1233	1000	100	570	702	807	938	648	875	26	12	810	861	900	16	12
YFBCSO900	1090	1823	1630	900	705	630	1417	1100	100	641	773	909	1040	714	976	28	14	900	958	1000	16	12
YFBCSO1000	1220	2082	1836	1000	790	710	1115	1200	126	712	844	1008	1139	784	1080	32	14	1010	1067	1110	24	12
YFBCSO1120	1460	2282	2026	1100	890	800	1272	1350	126	798	946	1130	1276	882	1210	34	14	1140	1200	1240	24	12
YFBCSO1250	1675	2547	2326	1300	1000	900	1488	1500	126	890	1038	1261	1407	976	1342	38	18	1280	1337	1380	24	12
YFBCSO1400	1880	2815	2485	1350	1112	995	1666	1760	140	998	1166	1415	1581	1090	1500	44	18	1435	1491	1535	32	12

L135°/R135°Dimension table

Unit: mm

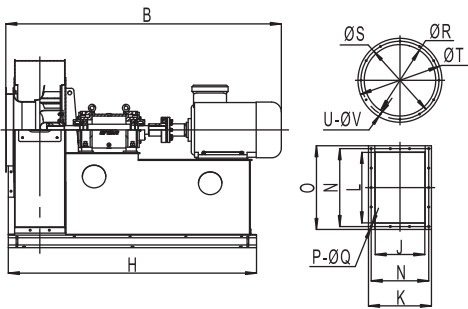
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	575	758	1021	400	-	439	503	550	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	675	854	1132	450	-	489	555	600	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	805	939	1243	500	-	537	722	650	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	865	1053	1328	500	-	590	755	700	80	399	504	565	669	462	628	14	12	575	629	665	12	10
YFBCSO630	1020	1164	1488	570	-	666	933	800	80	449	554	635	739	510	696	22	12	640	698	730	12	10
YFBCSO710	1095	1309	1657	640	-	748	996	900	80	509	614	716	820	575	770	24	12	720	775	810	16	12
YFBCSO800	1465	1449	1896	750	-	838	1233	1000	100	570	702	807	938	648	875	26	12	810	861	900	16	12
YFBCSO900	1090	1629	2132	850	-	944	1417	1100	100	641	773	909	1040	714	976	28	14	900	958	1000	16	12
YFBCSO1000	1220	1810	2388	900	-	1061	1115	1200	126	712	844	1008	1139	784	1080	32	14	1010	1067	1110	24	12
YFBCSO1120	1460	2027	2622	1000	-	1195	1272	1350	126	798	946	1130	1276	882	1210	34	14	1140	1200	1240	24	12
YFBCSO1250	1675	2268	2999	1200	-	1344	1488	1500	126	890	1038	1261	1407	976	1342	38	18	1280	1337	1380	24	12
YFBCSO1400	1880	2506	3243	1250	-	1490	1666	1760	140	998	1166	1415	1581	1090	1500	44	18	1435	1491	1535	32	12

L180°/R180°Dimension table

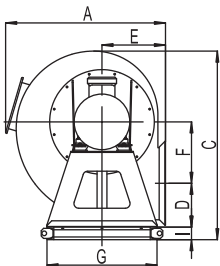
Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	575	735	951	400	301	319.5	503	550	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	675	822	1055	450	333	358	555	600	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	805	898	1160	500	365	394	722	650	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	865	1013	1238	500	400	435	755	700	80	399	504	565	669	462	628	14	12	575	629	665	12	10
YFBCSO630	1020	1123	1385	570	450	492.5	933	800	80	449	554	635	739	510	696	22	12	640	698	730	12	10
YFBCSO710	1095	1251	1545	640	500	558	996	900	80	509	614	716	820	575	770	24	12	720	775	810	16	12
YFBCSO800	1465	1387	1769	750	560	625	1233	1000	100	570	702	807	938	648	875	26	12	810	861	900	16	12
YFBCSO900	1090	1553	1991	850	630	705	1417	1100	100	641	773	909	1040	714	976	28	14	900	958	1000	16	12
YFBCSO1000	1220	1728	2189	900	710	790	1115	1200	126	712	844	1008	1139	784	1080	32	14	1010	1067	1110	24	12
YFBCSO1120	1460	1937	2442	1000	800	890	1272	1350	126	798	946	1130	1276	886	1210	34	14	1140	1200	1240	24	12
YFBCSO1250	1675	2167	2792	1200	900	1000	1478	1500	126	890	1038	1261	1407	972	1342	38	18	1280	1337	1380	24	12
YFBCSO1400	1880	2388	3016	1250	995	1112	1666	1760	140	998	1166	1415	1581	1090	1500	44	18	1435	1491	1535	32	12

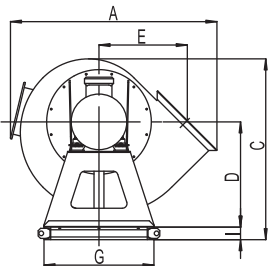
Outline and Installation Dimensions of YFBCSO-560~1400



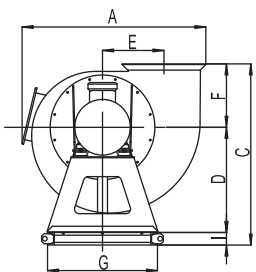
sizes of inlet and outlet flanges



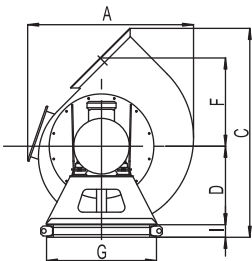
L0°



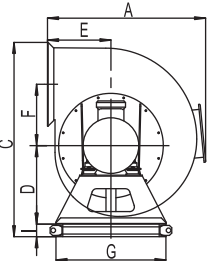
L45°



L90°



L135°



L180°

Note: drawing in R rotating direction and drawing in L rotating direction are distributed in the form of mirror image.

L0°/R0°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO560	1640	1013	1201	670	400	435	1510	700	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	1770	1123	1334	750	450	492.5	1627	750	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1940	1251	1498	850	500	558	1780	850	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	2260	1387	1683	950	560	625	2040	950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1860	1553	1915	1100	630	705	1720	1100	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1990	1728	2127	1200	710	790	1850	1200	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	2410	1937	2376	1350	800	890	2250	1350	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	2690	2167	2642	1500	900	1000	2420	1500	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	3070	2388	2865	1600	995	1112	2804	1760	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	3410	2660	3275	1850	1120	1250	3180	2000	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	3770	2960	3590	2050	1250	1395	3421	2200	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	3900	3300	4005	2300	1400	1563	3595	2400	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L45°/R45°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO560	1640	1316	1151	670	590	-	1510	700	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	1770	1462	1281	750	666	-	1627	750	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1940	1631	1438	850	748	-	1780	850	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	2260	1809	1616	950	838	-	2040	950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1860	2034	1841	1100	944	-	1720	1100	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1990	2304	2048	1200	1061	-	1850	1200	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	2410	2548	2288	1350	1195	-	2250	1350	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	2690	2847	2546	1500	1344	-	2420	1500	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	3070	3143	2760	1600	1490	-	2804	1760	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	3410	3500	2900	1650	1675.8	-	3180	2000	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	3770	3900	3165	1800	1870.3	-	3421	2200	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	3900	4350	3520	2000	2095	-	3595	2400	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L90°/R90°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO560	1640	1176	1030	550	435	400	1510	700	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	1770	1307	1150	620	492.5	450	1627	750	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1940	1460	1280	700	558	500	1780	850	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	2260	1619	1460	800	625	560	2040	950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1860	1823	1630	900	705	630	1720	1100	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1990	2082	1836	1000	790	710	1850	1200	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	2410	2282	2026	1100	890	800	2250	1350	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	2690	2547	2326	1300	1000	900	2420	1500	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	3070	2815	2485	1350	1112	995	2804	1760	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	3410	3130	2620	1500	1250	1120	3180	2000	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	3770	3485	2900	1650	1395	1250	3421	2200	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	3900	3890	3250	1850	1563	1400	3595	2400	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L135°/R135°Dimension table

Unit: mm

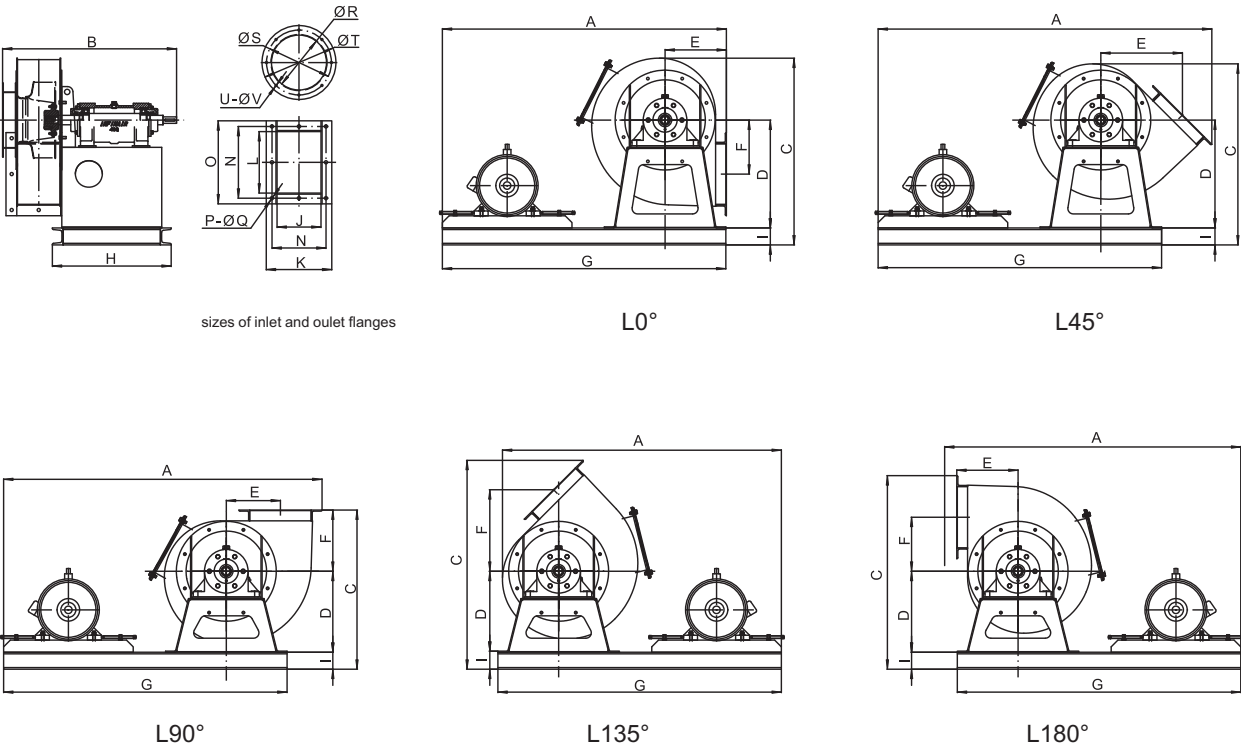
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO560	1640	1053	1328	500	-	590	1510	700	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	1770	1164	1488	570	-	666	1627	750	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1940	1309	1657	640	-	748	1780	850	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	2260	1449	1896	750	-	838	2040	950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1860	1629	2132	850	-	944	1720	1100	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1990	1810	2388	900	-	1061	1850	1200	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	2410	2027	2622	1000	-	1195	2250	1350	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	2690	2268	2999	1200	-	1344	2420	1500	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	3070	2506	3243	1250	-	1490	2804	1760	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	3410	2845	3480	1400	-	1675.8	3180	2000	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	3770	3160	3870	1550	-	1870.3	3421	2200	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	3900	3510	4350	1750	-	2095	3595	2400	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L180°/R180°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO560	1640	1012	1238	500	400	435	1510	700	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	1770	1120	1385	570	450	492.5	1627	750	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1940	1251	1545	640	500	558	1780	850	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	2260	1387	1769	750	560	625	2040	950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1860	1554	1991	850	630	705	1720	1100	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1990	1730	2189	900	710	790	1850	1200	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	2410	1936	2442	1000	800	890	2250	1350	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	2690	2163	2792	1200	900	1000	2420	1500	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	3070	2387	3016	1250	995	1112	2804	1760	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	3410	2660	3120	1300	1120	1250	3180	2000	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	3770	2960	3480	1450	1250	1395	3421	2200	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	3900	3300	3870	1600	1400	1563	3595	2400	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

Outline and Installation Dimensions of YFBCSO-400~1400



Note: drawing in R rotating direction and drawing in L rotating direction are distributed in the form of mirror image.

L0°/R0°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	820	1276	885	500	301	319.5	560	1250	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	800	1433	985	560	333	358	600	1400	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	960	1490	1074	610	365	394	850	1450	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	960	1600	1201	670	400	435	859	1550	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	990	1775	1334	750	450	492.5	887	1700	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1020	1875	1498	850	500	558	920	1800	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	1170	2035	1683	950	560	625	1067	1950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1210	2330	1915	1100	630	705	1111	2250	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1360	2510	2127	1200	710	790	1243	2400	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	1590	2675	2376	1350	800	890	1460	2550	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	1640	2850	2642	1500	900	1000	1516	2700	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	1730	3165	2865	1600	995	1112	1599	3050	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	2105	3270	3275	1850	1120	1250	1961	3150	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	2215	3550	3590	2050	1250	1395	2041	3400	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	2315	3950	4005	2300	1400	1563	2135	3750	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L45°/R45°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	820	1533	854	500	439	-	560	1250	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	800	1719	950	560	489	-	600	1400	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	960	1805	1036	610	537	-	850	1450	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	960	1948	1151	670	590	-	859	1550	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	990	2163	1281	750	666	-	887	1700	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1020	2312	1438	850	748	-	920	1800	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	1170	2521	1616	950	838	-	1067	1950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1210	2882	1841	1100	944	-	1111	2250	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1360	3162	2048	1200	1061	-	1243	2400	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	1590	3371	2288	1350	1195	-	1460	2550	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	1640	3623	2546	1500	1344	-	1516	2700	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	1730	4023	2760	1600	1490	-	1599	3050	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	2105	4280	2900	1650	1675.8	-	1961	3200	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	2215	4570	3165	1800	1870.3	-	2041	3350	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	2315	5145	3520	2000	2095	-	2135	3750	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L90°/R90°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	820	1463	764	400	319.5	301	560	1250	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	800	1642	846	450	358	333	600	1400	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	960	1722	928	500	394	365	850	1450	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	960	1858	1030	550	435	400	859	1550	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	990	2060	1150	620	492.5	450	887	1700	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1020	2200	1280	700	558	500	920	1800	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	1170	2394	1460	800	625	560	1067	1950	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1210	2741	1630	900	705	630	1111	2250	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1360	2963	1836	1000	790	710	1243	2400	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	1590	3191	2026	1100	890	800	1460	2550	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	1640	3416	2326	1300	1000	900	1516	2700	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	1730	3796	2485	1350	1112	995	1599	3050	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	2105	4020	2620	1500	1250	1120	1961	3200	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	2215	4330	2900	1650	1395	1250	2041	3400	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	2315	4670	3250	1850	1563	1400	2135	3600	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

L135°/R135°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
YFBCSO400	820	1316	1021	400	-	439	560	1300	63	178	263	252	336	220	292	8	12	254	292	324	8	10
YFBCSO450	800	1477	1132	450	-	489	600	1450	63	200	285	284	368	250	330	10	12	285	332	365	8	10
YFBCSO500	960	1538	1243	500	-	537	850	1500	63	227	312	321	405	272	366	10	12	320	366	400	8	10
YFBCSO560	960	1651	1328	500	-	590	859	1600	80	255	340	361	445	300	405	10	12	360	405	440	8	10
YFBCSO630	990	1876	1488	570	-	666	887	1800	80	283	368	401	485	330	447	12	12	405	448	485	12	10
YFBCSO710	1020	1983	1657	640	-	748	920	1900	80	316	401	449	533	366	496	14	12	455	497	535	12	10
YFBCSO800	1170	2141	1896	750	-	838	1067	2050	100	355	441	503	588	404	550	18	12	505	551	585	12	10
YFBCSO900	1210	2441	2132	850	-	944	1111	2350	100	399	505	567	672	460	625	18	12	575	629	665	12	10
YFBCSO1000	1360	2622	2388	900	-	1061	1243	2500	126	451	557	640	745	500	696	20	12	640	698	730	12	10
YFBCSO1120	1590	2787	2622	1000	-	1195	1460	2650	126	506	640	719	851	575	777	24	14	720	775	810	16	12
YFBCSO1250	1640	2970	2999	1200	-	1344	1516	2800	126	562	696	799	931	648	880	28	14	810	861	900	16	12
YFBCSO1400	1730	3340	3243	1250	-	1490	1599	3200	140	632	766	896	1028	708	976	28	14	900	958	1000	16	12
YFBCSO1600	2105	3545	3480	1400	-	1675.8	1961	3350	160	713	839	1006	1132	791	1080	32	14	1010	1067	1110	24	12
YFBCSO1800	2215	3730	3870	1550	-	1870.3	2041	3500	180	798	938	1126	1266	882	1200	34	14	1140	1200	1240	24	12
YFBCSO2000	2315	3980	4350	1750	-	2095	2135	3700	200	898	1038	1267	1407	976	1342	38	18	1280	1337	1380	24	12

Fan approx. weight

Model \ Drive arr	Fan approx. weight (kg)		
	A4	A8	A12
YFBCSO400	79	-----	89
YFBCSO450	99	-----	101
YFBCSO500	124	-----	128
YFBCSO560	150	297	257
YFBCSO630	205	341	298
YFBCSO710	265	464	388
YFBCSO800	431	493	508
YFBCSO900	490	689	588
YFBCSO1000	610	925	754
YFBCSO1120	789	1317	1176
YFBCSO1250	1038	1682	1386
YFBCSO1400	1382	2267	1911
YFBCSO1600	-----	4215	3369
YFBCSO1800	-----	5023	4101
YFBCSO2000	-----	6344	4935

Notes: Motor weight is not included in the table.

Motor approx. weight

Motor approx. weight(kg)					
Power(kW) \ Poles	2P	4P	6P	8P	10P
0.18	14	13.5	14	16	
0.25	14.5	14	14.5	17	
0.37	15	14.5	16	24	
0.55	15.5	15	17	28	
0.75	15	16	22	30	
1.1	16	21	24	32	
1.5	21	23	32	40	
2.2	24	33	41	64	
3	33	35	63	78	
4	41	41	72	105	
5.5	63	65	81	115	
7.5	70	76	118	145	
11	110	118	145	160	
15	120	132	178	228	
18.5	135	164	200	242	
22	165	182	228	265	
30	218	245	265	368	
37	230	258	370	470	
45	280	290	490	538	818
55	365	388	540	900	928
75	495	510	900	1000	1080
90	565	606	980	1055	1200
110	890	910	1045	1118	1800
132	980	1000	1100	2000	2000
160	1055	1055	1550	2150	2500
200	1110	1178	1600	2250	
250	1900	1700	1700		
315	2300	1900			

Notes: Due to different weights of motors of different brands, motor weights in the table are only for reference.

• Housing drain

Be installed at the bottom of the volute to facilitate discharge of liquid-state waste timely, such as condensed water etc.

Optional Accessories

• Stainless wheel

Stainless steel material is suitable for cases of corrosion resistance and high temperature.

• Inlet/outlet companion flange

A necessary component for the fan connection with the air duct to convenient for installation and teardown of the air duct.

• Silencer

Be installed at the inlet or outlet and is made of galvanized steel to reduce the fan noise effectively.

• Inlet/outlet flexible duct connector

A flexible connector between the fan and the air duct, and can be applied to prevent transmission of vibration of the fan to the whole system and at the same time it can be used for fan connection with air ducts which have different diameters and different central heights.

• Inlet/outlet protective screening

Safety protection to avoid personal injury resulted from the fan operation.

• Inlet/outlet volume deflector

Be installed at the inlet to ensure safety startup of the fan. The required air volume can be adjusted freely.

• Full-closed belt cover

Completely protect fan from external damage to decrease maintenance cost.

• Epoxy motor weather hood

Protect motor from rain and snow assault and extend the motor life.

• Second-floor absorber pedestal

On base of the floor pedestal, it can decompose the local stress of the cement pedestal and remedy the problem caused by the surface unevenness.

• Anti-explosion copper loop

Be placed at the inlet and applied together with anti-explosion motor to achieve AMCA standard Spark C anti-explosion grade.

Standard accessories

• Ordinary bearing box

To ensure concentricity of the two bearings and decrease shock and prevent the bearing from rain corrosion to extend the bearing life.

• Scroll access door

Check the rotation of the wheel and clear attachments on the wheel to ensure the dynamic balance of the wheel.

• Half-closed belt cover

To protect the belt from external damage to reduce the maintenance cost.

• Absorber pedestal

To uniform weight of the fan to avoid local stress concentration and ensure smooth operation of the fan.

• Shear-proof spring absorber

Down-load fan dynamic load to prevent fan from moving horizontally and make sure that fan operate smoothly and decrease the fan running noise.

Technical specifications

• Fan type

The fan wheel shall be single-inlet centrifugal with backward curved centrifugal wheel. The drive type shall be direct drive, coupling drive or belt drive.

• Standards and codes

The design and manufacture of fan shall be subject to JB/T 10563-2006 *Technical Specification for General Purposes Centrifugal Fans*, the dynamic balancing of wheel shall be subject to JB/T 9101-2014 *Fan Rotor Balance*, the over-speed test on wheel shall be subject to JB/T 6445-2005 *Over-speed Test for Industrial Fan Impeller*, the air performance test of fan shall be subject to AMCA210-07 *Methods for Laboratory Testing and Evaluation of Fans*, welding shall be subject to JB/T 10213-2014 *Technical Specification for Fan Welding Inspection*, and the safety shall be subject to GB/T 19074-2003 *Industrial Fans - Mechanical Safety of Fans - Guarding*.

• Wheel

The wheel shall be steel backward-bladed centrifugal and shall be adopted as the wheel by all-welding. The wheel shall be statically and dynamic-cally balance to level G4.0 in accordance with ISO standard No.1940. When the wheel is operating at the highest allowable speed, the volume shall be stable and the noise shall be low. Wheel features shall be able to avoid performance downgrade resulting from sliding of the working points. Structure of the fan shall allow convenient withdrawal of the wheel for maintenance and cleaning.

• Fan Housing

Housing of the fan shall be made of steel. Its thickness and strength shall be able to bear the maximum operation weight of the fan. Housing of the fan shall be made through continuous welding. The housing of the fan must be equipped with a manhole for removing of foreign matters entering the fan.

• Inlet

Fan inlet shall be steel and aerodynamic design round curved section to smoothly transit the air to the wheel cone, it will have well commutate effect to effectively reduce turbulence, improve fan efficiency and reduce noise.

• Surface processing

The fan surface shall be first polished to clear protruding foreign matters, welding slag, burrs, sharp edges, iron scraps, oil stain, and then be electrostatic sprayed with epoxy resin in silver gray. The surface after being painted shall have glossiness no less than 70% and shall be free from bump, sag, crack, wrinkled skin or shedding. Under the equipment allowable working conditions, it shall guarantee that the fan not be corroded or rusted in at least ten years.

• Belt drives and coupling drives

The fan shaft shall be treated through soaking furnace to the hardness of HB250 to 280. The maximum velocity shall be designed to at least exceed 35% of the maximum fan operation speed. Two bearings shall be used to support the fan shaft. The service life of the bearing shall be more than L10:80000h. At normal temperature, it shall be sealed and lubricated. The pulley shall be constructed of cast-iron, with a dimension selected corresponding to 150% of the driving power. The pulley and belt shall be provided with shield. The coupling shall be elastic coupling. Its safety of conveying power and torsion shall meet the design requirements.

• Motor

The motor shall be closely matched to the fan load, IP 54, and insulation class F, and the motor bearings shall be ball-bearings and could be lubricated. The motor and the driving mechanism shall be located out of the air flow to avoid accumulation of grease or dust from the air flow.

• Nameplate

Permanently fixed aluminum nameplate shall be fixed on fan body clearly display fan mark, product model and serial number. The serial number shall be a unique ID for each fan so that the customer can find out the parts being used to build this fan according to the number.

• Acceptable Manufacturers

Qualified suppliers shall have an AAA credit rating, providing **INFINAIR®** or similar products ,with their design based on YFBCSO models of **INFINAIR®**.