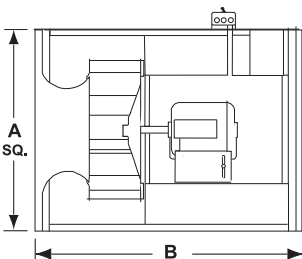
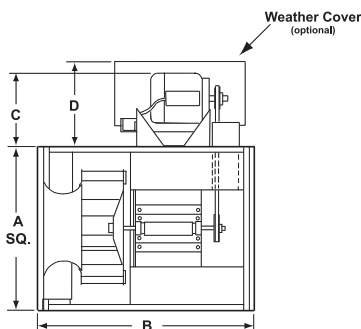




Belt and Direct Drive In-Line Centrifugals Models USB and USD



Models USD and USB are square in-line centrifugal fans designed to eliminate costly round to square ductwork transitions with the flexibility of any angle operation. USD is direct driven and USB is belt driven. Model USD is available in five sizes with capacities up to 5445 CFM and up to 1 3/4" static pressure. Model USB is available in eight sizes with capacities up to 28,332 CFM and up to 2 1/2" static pressure. AMCA "B" spark resistant construction is standard on both models. The USD is suitable for airstream temperatures up to 140°F and the USB up to 200°F.



DIMENSIONS

Fan Model	A	B	C Max.	D Max.
USB090	14.00	18.56	12.12	14.06
USB120	17.88	24.88	11.19	15.25
USB137	20.50	28.13	11.19	15.25
USB161	24.25	32.69	13.69	18.50
USB200	30.00	39.75	13.69	18.50
USB245	36.75	48.06	13.69	18.50
USB300	45.00	58.31	16.38	20.00
USB365	54.75	71.06	16.38	20.00
USB425	63.88	72.75	13.88	17.68
USD100	14.00	18.62	NA	NA
USD120	17.88	24.88	NA	NA
USD137	20.50	28.12	NA	NA
USD161	24.25	32.63	NA	NA
USD200	30.00	39.75	NA	NA

Dimensions are shown in inches.

Construction Features

Housing

- Heavy duty galvanized steel construction
- Removable side panels on both sides for easy access and serviceability
- Fully gasketed and bolted access panels provide weather protection

Centrifugal Wheel

- Aluminum construction with backward curved hollow airfoil blades
- Non-overloading design for safe operation
- Precision balanced for smooth vibration free operation

Bearings

- Permanently lubricated in a duplex split pillow block housing
- Bearings are resiliently mounted in neoprene rings
- Rated at L₅₀ life of 200,000 hours
- **5 year** limited warranty on duplex split pillow block bearings
- Unitary pillow block bearings are standard on USB425

Drive Assembly

- Located out of the airstream
- Cast iron drives sized for 150% of drive horsepower
- Static free, oil and heat resistant belts

Motors

- Continuous duty motors located outside the airstream
- Prelubricated ball bearings

Options/Accessories

- Aluminum Housing
- Solid State Speed Controllers
- Dampers
- Coatings
- Guards/Covers
- Isolators
- Filter box
- Side Discharge Flange
- Insulated Housing

Fast Ship Program	Next Day	10 Day
USD100, USD120-7, USD137E6, USD161G6 ODP	•	•
USB120-245 ODP	•	•
USB120-245 TE		•

Consult factory for specific motor availability.



U.S. Fan International® certifies that the models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



U.L. 705 Listed



CSA Certified

Consult your U.S. Fan representative for availability.

DIRECT DRIVE

PERFORMANCE DATA																											
Fan Model	RPM	HP	.000"		.125"		.250"		.375"		.500"		.625"		.750"		1.000"		1.250"		1.500"		1.750"		Max. BHP	Est Ship Wt.	
			CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones			
USD100	860	1/10	380	5.3	220	3.8																			.012	41	
	1050		460	7.0	350	5.6																		.022			
	1300		570	9.4	480	8.0	380	7.5	230	9.6														.042			
	1550		680	12	610	11	530	10	430	10	290	9.2												.070			
USD120-7	825	1/20	770	4.4	665	3.5																			.033	72	
	955		890	5.2	805	4.8	650	4.4																.052			
	1050		980	6.4	900	5.6	800	5.5	440	5.2														.069			
USD120F4	1750	1/3	1635	15	1590	15	1540	15	1490	14	1440	14	1375	14	1290	14	860	13							.322	86	
USD137B8	860	1/12	1285	5.8	1080	5.4	870	5.0	400	4.6															.077	114	
USD137E6	1160	1/4	1730	9.1	1595	9.2	1420	9.0	1250	9.1	1130	8.9	805	9.2											.190	116	
USD137H4	1750	3/4	2610	16	2520	16	2430	15	2330	15	2210	15	2090	14	1970	14	1790	14	1620	14	970	15			.655	130	
USD161D8	860	1/6	2040	8.6	1925	8.1	1770	7.6	1545	7.1	775	6.7													.184	150	
USD161G6	1160	1/2	2750	14	2670	13	2580	12	2475	12	2330	12	2170	12	1960	12									.452	171	
USD161K4	1750	1 1/2	4145	25	4095	25	4040	24	3960	23	3925	23	3865	22	3800	21	3630	21	3420	20	3200	19	2870	19	1.547	181	
USD200K6	1160	1 1/2	5445	16	5280	16	5115	16	4950	16	4780	15	4605	15	4425	15	4045	15	3190	15					1.295	279	

Outlet Velocity
 USD100: Outlet Velocity = CFM x 1.000
 USD120: Outlet Velocity = CFM x .571
 USD137: Outlet Velocity = CFM x .421
 USD161: Outlet Velocity = CFM x .291
 USD200: Outlet Velocity = CFM x .184

Power rating (BHP) does not include drive losses. The brake horsepower capability of an exhaustor motor is dependent on the degree of cooling the motor receives from the air moving through the motor. The above motor loadings do not overheat the motor and are in accordance with the motor manufacturer's recommendations. It is, therefore, not detrimental to the motor and economically desirable. Maximum RPM shown obtained with the standard one speed motor; for all other RPM's add solid state speed controller. Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance shown is for Installation Type A: Free Inlet, Free Outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 feet (1.524 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet fan Sone levels.

BELT DRIVE

PERFORMANCE DATA																		
Fan Model	Min. Max. RPM	HP	Sones @ .125"	.125"	.250"	.375"	.500"	.625"	.750"	1.000"	1.250"	1.500"	1.750"	2.000"	2.250"	2.500"	Max. BHP	Est. Ship Wt.
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM		
USB090E1	1583 2177	1/4	7.0 12.4	608 879	510 830	405 766	280 682	604	532	338							.07 .18	48
USB090E2	1847 2492	1/4	9.2 15.6	730 1019	663 978	568 931	479 872	382 799	254 729	599	433		Outlet Velocity = CFM x 1.00				.11 .27	49
USB090F	1920 2717	1/3	9.9 18.5	764 1118	702 1081	613 1041	524 993	437 936	326 867	742	619	463					.12 .35	56
USB090G	2333 3196	1/2	13.9 25	949 1327	904 1296	850 1264	780 1229	701 1191	630 1147	480 1039	274 928		719	587	436		.22 .56	64
USB120E1	910 1375	1/4	5.6 10.0	755 1225	545 1160		645	965	645								.06 .18	105
USB120E2	1070 1570	1/4	7.0 14.5	920 1415	825 1360	520 1305	1235	1135	930								.09 .27	106
USB120F	1140 1725	1/3	7.3 15.9	995 1565	910 1515	730 1465	1410	1345	1250	760							.11 .35	110
USB120G	1400 2060	1/2	11.7 21	1250 1885	1190 1845	1115 1805	1010 1760	740 1720		1545	1285	740					.19 .57	116
USB120H	1590 2335	3/4	15.0 23	1435 2145	1380 2110	1325 2075	1260 2040	1165 2005	980 1965		1770	1580	1210	720			.27 .81	124
USB120J	1935 2570	1	18.9 27	1765 2370	1725 2340	1680 2305	1635 2275	1585 2240	1530 2210	1350 2135	875 2055	1955	1800	1535	1075	680	.47 1.07	130
USB137F	930 1365	1/3	7.0 12.4	1205 1920	990 1790	815 1635	1490	1380	1275								.12 .34	136
USB137G	1060 1605	1/2	8.9 14.5	1430 2300	1230 2195	1075 2080	885 1945	1815	1705	1530	930						.16 .54	142
USB137H	1325 1830	3/4	11.7 20	1860 2645	1720 2560	1560 2465	1420 2360	1310 2240	1180 2120	1930	1775	1500					.31 .78	146
USB137J	1400 2060	1	13.2 23	1980 3000	1850 2920	1700 2840	1555 2755	1440 2660	1345 2555	2350	2180	2045	1895	1350			.36 1.11	153
USB137K	1675 2310	1 1/2	15.3 26	2405 3380	2310 3310	2200 3245	2075 3170	1945 3090	1830 3010	1655 2825	1395 2640	2485	2355	2240	2090	1550	.80 1.55	164
USB137L	1955 2490	2	20 29	2840 3650	2760 3590	2670 3530	2575 3460	2470 3390	2360 3320	2155 3155	2000 2980	1850 2815	1435 2675	745 2555	2445	2325	.95 1.94	173

Power rating (BHP) does not include drive losses. Performance shown is for installation type A: Free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The brake horsepower capability of an exhaustor motor is dependent on the degree of cooling the motor receives from the air moving through the motor. The motor loading beyond the motor nameplate rating does not overheat the motor and is in accordance with the motor manufacturer's recommendations. It is, therefore, not detrimental to the motor and economically desirable. The sound ratings shown are loudness values in fan sones at 5 feet (1.524m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet fan Sone levels.



BELT DRIVE

PERFORMANCE DATA																		
Fan Model	Min. Max. RPM	HP	Sones @ .125"	.125"	.250"	.375"	.500"	.625"	.750"	1.000"	1.250"	1.500"	1.750"	2.000"	2.250"	2.500"	Max. BHP	Est. Ship Wt.
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM		
USB161F	695 1055	1/3	5.1 10.9	1500 2410	1235 2310	2170	2000	1770	970								.10 .35	182
USB161G	825 1210	1/2	6.7 14.6	1840 2790	1660 2710	1410 2610	2485	2330	2165								.17 .53	188
USB161H	930 1365	3/4	8.4 16.7	2100 3165	1970 3095	1780 3020	1500 2930	2815	2680	2375	1285						.24 .76	193
USB161J	1070 1570	1	10.9 19.9	2450 3660	2350 3600	2220 3540	2045 3470	1840 3390	1140 3300	3070	2820	2160	Outlet Velocity = CFM x .291				.37 1.14	199
US161K	1330 1710	1 1/2	16.2 26	3080 4000	3010 3940	2930 3885	2830 3825	2710 3760	2565 3690	2210 3510	3290	3055	2480	1445			.70 1.47	208
USB161L	1405 1865	2	17.6 28	3265 4370	3195 4320	3120 4270	3035 4215	2930 4160	2805 4100	2525 3960	1715 3780	3055	3365	3030	2110	1155	.82 1.90	210
USB161M	1735 2210	3	24 39	4060 5195	4005 5150	3950 5110	3890 5065	3826 5020	3755 4975	3585 4880	3370 4770	3145 4640	2760 4485	1720 4310	4140	3950	1.53 3.16	227
USB200H	670 985	3/4	7.0 14.4	2860 4430	2555 4235	2195 4035		3610	3375	1890							.26 .80	288
USB200J	730 1055	1	7.8 16.3	3165 4770	2890 4590	2600 4405	1960										.33 .98	294
USB200K	860 1250	1 1/2	12.6 20	3815 5715	3590 5560	3355 5410	3105 5250	2790 5095	1785 4930	4590	4205	3155	Outlet Velocity = CFM x .184				.54 1.64	304
USB200L	1020 1410	2	15.3 25	4600 6485	4415 6350	4220 6215	4020 6080	3815 5940	3600 5800	2565 5510	5210	4885	4380	3030			.89 2.34	299
USB200M	1195 1525	3	19.5 31	5450 7035	5290 6910	5130 6785	4965 6660	4800 6530	4625 6400	4260 6140	3740 5870	2070 5590	5290	4870	3765	2305	1.42 2.97	325
USB200N	1570 1885	5	32 44	7250 8750	7130 8645	7005 8545	6885 8445	6760 8340	6635 8240	6380 8035	6120 7825	5855 7610	5570 7395	5240 7175	4525 6950	3255 6710	3.24 5.57	339
USB245H	440 645	3/4	5.5 10.9	3595 5600	2925 5315	2510	4550	2710									.22 .69	402
USB245J	500 735	1	7.3 14.8	4195 6455	3790	2115											.32 1.01	407
USB245K	590 855	1 1/2	9.3 17.2	5075 7585	4760 7375	4375 7160	2925 6940	6705	6435	5060							.52 1.58	416
USB245L	665 965	2	11.7 21	5790 8610	5515 8425	5225 8235	4840 8045	3495 7850	1230 7645	7160	5095						.75 2.28	418
USB245M	860 1100	3	17.6 29	7630 9865	7420 9700	7210 9540	6990 9370	6760 9205	6495 9035	5255 8680	8260	7600	5330				1.60 3.39	440
USB245N	1050 1295	5	27 35	9400 11665	9230 11530	9055 11390	8885 11250	8710 11110	8530 10970	8140 10680	7630 10385	6315 10070	3365 9700	9180	8055	5615	2.95 5.53	448
USB300J	355 520	1	6.5 11.4	4735 7560	3640 7025	6375	5640	3835									.31 .96	608
USB300K	410 595	1 1/2	7.4 13.8	5715 8780	4910 8340	3400 7830	7255	6625	5560								.47 1.42	620
USB300L	485 670	2	9.7 16.6	6980 9990	6380 9610	5660 9195	4505	8720	8205	7665	5570						.77 2.01	622
USB300M	610 775	3	14.6 20	9025 11660	8600 11340	8110 11000	7550	6960	6145	9800	8880	7470	3870				1.53 3.09	638
USB300N	710 875	5	18.5 25	10603 13245	10270 12960	9890 12670	9470	8995	8505	7280	3715	9080	6715				2.40 4.47	654
USB300P	825 1010	7 1/2	22 32	15370 12455	12150 15125	11840 14875	11510	11155	10765	9925	8980	7060	11410	10470	8630	5665	3.75 6.85	719
USB300R	925 1135	10	26 40	14030 17325	13765 17110	13490 16890	13210	12915	12600	11900	11150	10340	9150	6520	12710	11880	5.25 9.72	739
USB365K	310 450	1 1/2	6.2 14.2	7615 11945	6265 11140	10280	9335	7785	3915								.54 1.63	865
USB365L	365 505	2	8.8 16.1	9360 13580	8310 12885	7000	11360	10510	9300								.88 2.29	873
USB365M	435 555	3	13.3 19.2	11495 15050	10655 14430	9755	8715	6520	12360	11585	8705						1.48 3.03	891
USB365N	550 675	5	18.6 25	14905 18545	14275 18040	13610	12905	12185	11385	8225	14665	13200	10210				2.96 5.47	894
USB365P	620 760	7 1/2	22 30	16950 21000	16400 20555	15830	15225	14600	13965	12530	9685	16590	15375	13505	9680		4.24 7.78	970
USB365R	680 815	10	25 34	18690 22580	18190 22165	17680	17150	16595	16025	14845	13430	10685	4860	16355	14600	11275	5.59 9.60	990
USB425K	255 380	1 1/2	5.2 12.4	9157 14928	7290 13891	12742	11493	9917									.50 1.68	1240
USB425L	300 415	2	7.4 14.2	11301 16477	9862 15550	8098	13451	12263	10766								.83 2.19	1248
USB425M	355 475	3	10.1 17.6	13811 19100	12674 18311	11411	9941	7503		3.28							1.36 3.28	1266
USB425N	445 565	5	15.6 24	17792 22987	16941 22335	16024	15037	13999	12838	8815	15963						2.66 5.62	1270
USB425P	525 645	7 1/2	21 32	21265 26413	20559 25846	19824	19046	18223	17368	15515	13026		19124	17272	14659		4.34 8.21	1346
USB425R	545 690	10	23 37	22127 28332	21449 27803	20748	20009	19230	18416	16695	14589	10794		20249	18499	16160	4.95 10.05	1395

Power rating (BHP) does not include drive losses. Performance shown is for installation type A: Free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The brake horsepower capability of an exhaustor motor is dependent on the degree of cooling the motor receives from the air moving through the motor. The motor loading beyond the motor nameplate rating does not overheat the motor and is in accordance with the motor manufacturer's recommendations. It is, therefore, not detrimental to the motor and economically desirable. The sound ratings shown are loudness values in fan sones at 5 feet (1.524m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet fan Sone levels.