

SQBI series

CENTRIFUGAL FAN

engineering data
and specifications



Since the founding of Cincinnati Fan in 1956, the company's mission has been to provide quality products at competitive prices, backed by depend-able service.

This mission is carried out by specializing in the market for industrial air handling products up to 125 hp. But specialization does not mean the product line is small. Cincinnati Fan offers a wide variety of standard and customized products, production flexibility, and customer responsiveness.

CINCINNATI FAN PROVIDES

- ◆ Technical evaluation for correct performance conditions
- ◆ Review of air stream and ambient conditions that require special attention
- ◆ Selection of proper components to meet required design specifications
- ◆ Selection of proper accessories
- ◆ System analysis for proper fan design

Cincinnati Fan operates in a modern facility specifically designed for world class manufacturing enabling us to build standard products to order, including accessories, and ship within 5 to 10 working days.

With support like this, you can be sure your Cincinnati Fan product will be well-built and will provide maximum dependability and longevity.

Cincinnati Fan has over 170 experienced sales engineers across the US and Canada ready to serve your air handling needs.

ADVANTAGES OF DIRECT DRIVE ARRANGEMENT 4

◆ COST

Lower initial cost plus lower maintenance cost (no V-belt drives, fan shaft or bearings to replace).

◆ RATINGS

More ratings available. All sizes offered with two wheel diameters and fan housing widths from 100% to 50% in 5% increments.

◆ COMPACT

Requires less space.

◆ MOUNTING

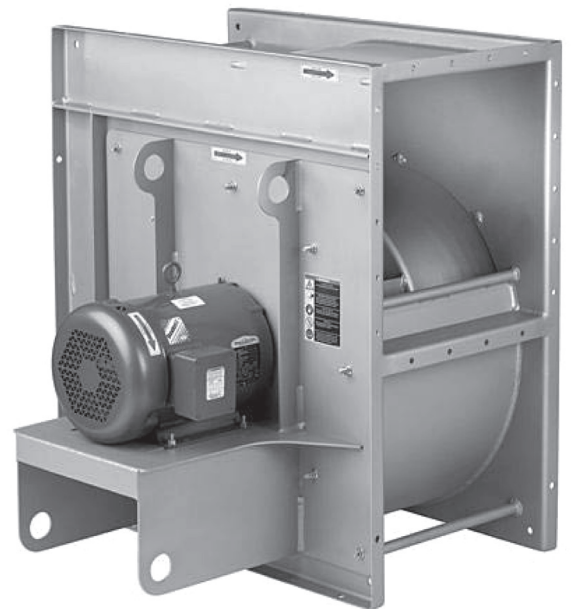
Four discharge positions and two rotations (CW or CCW) plus fans can be mounted horizontally (Maximum 600 pound motor).

◆ LESS WEIGHT

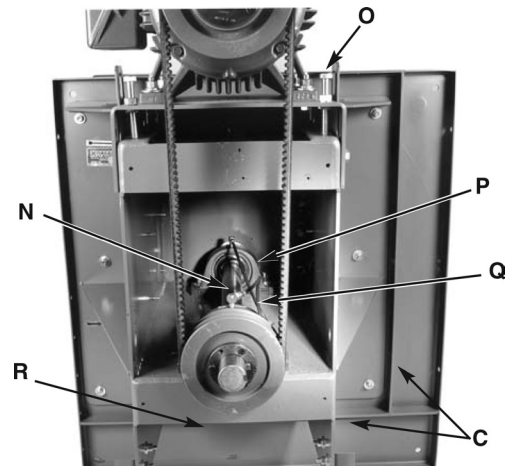
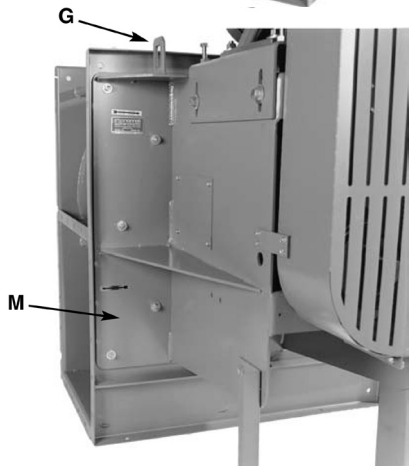
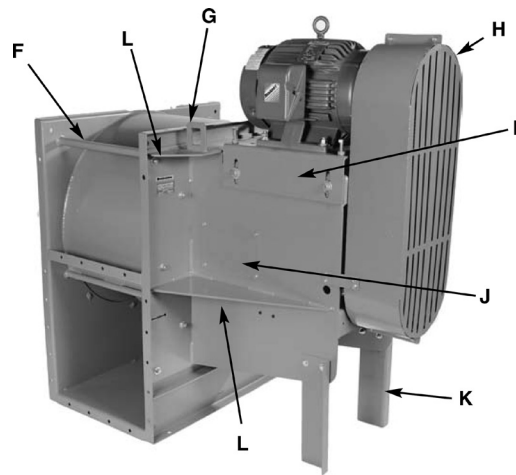
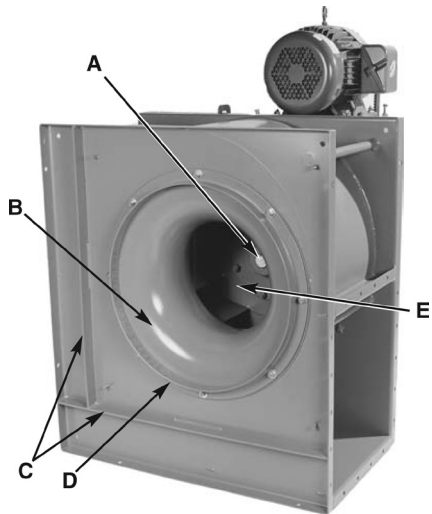
Requires less supporting structure.

◆ CONSTRUCTION

Solidly built with continuously welded housings and mounting holes in all support flanges. All fans are mechanically run tested prior to shipment to ensure the balance of the assembled unit.



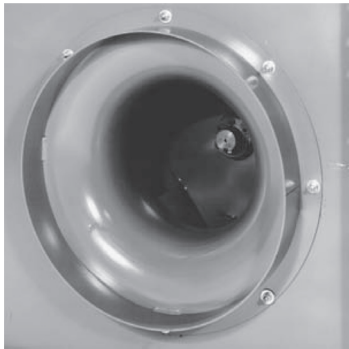
ARRANGEMENT 9 FEATURES



- A - Heavy-duty, cast iron wheel hub.
- B - Inlet bell designed for smooth air entrance into wheel for maximum efficiency.
- C - Inlet and motor side plate braces for added rigidity.
- D - Slip collar inlet (optional) for ductwork connection. Flanged inlet also available. See page 4.
- E - Backward inclined blades fabricated of heavy-gauge high strength steel to assure long lasting, efficient operation.
- F - Steel pipe support rods between inlet and motor side plates for extra rigidity and smooth operation.
- G - Lifting lugs for ease of mounting by hoist or crane in hard to reach areas.
- H - Heavy-duty belt guard, painted safety yellow, Standard on arrangement 9.
- I - Motor mounting base extended so fan can be built in Up Blast Discharge position with motor still on top.
- J - Inboard bearing inspection opening on two sides.
- K - Steel angle support legs for shipping. Remove after mounting is completed.

- L - Drive side plate braces for added rigidity.
- M - Drive side plate can be disconnected to rotate housing in field without removing wheel or disturbing bearings and drives. Also, entire motor/bearing support structure and wheel can be removed from installation without having to disconnect inlet and/or discharge duct work.
- N - Turned, ground and polished shaft assures smooth operation. A rust preventative coating is applied prior to shipment.
- O - Four motor adjustment bolts for easy adjustment and alignment of belt tension.
- P - Heavy-duty, self-aligning, relubricatable, ball bearings in cast iron pillow blocks are standard. Bearings selected for optimal performance depending on fan size and class with an L₁₀ life of 30,000 hours minimum.
- Q - Bearing grease lines extend to grease fittings (not shown) outside of bearing base for easy lubrication of fan bearings when needed.
- R - Bearing base is heavy steel construction with supports to maximize rigidity and assure long equipment life.

OPTIONS



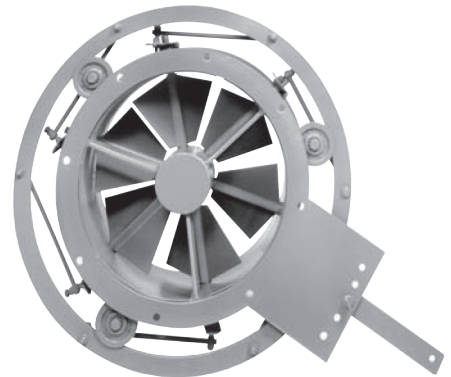
Inlet Collar

Inlet collar for slip-fit connection to duct work.



Inlet Flange

Flanged inlet for bolted connection to duct work. Flange drilled with standard hole pattern, see page 23. Undrilled flanges available at additional cost and extended delivery.



Inlet Vane Control

Inlet vane offers more efficient flow control compared to outlet damper. Manual control is standard. Automatic control is optional. Requires inlet collar and flange for mounting to fan.



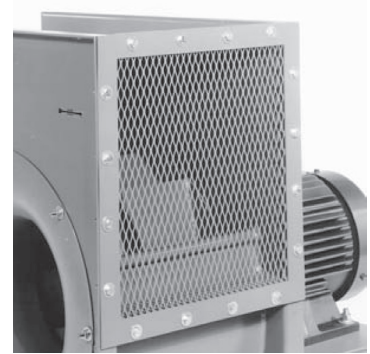
Drain Connection

3/4" NPT pipe coupling with plug. Welded to lowest point on inlet side plate.



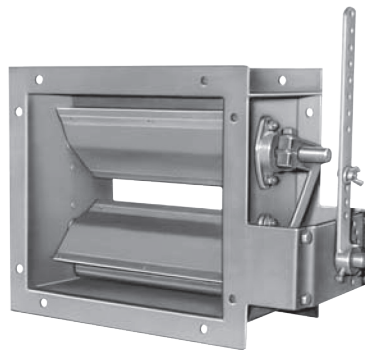
Inlet and Outlet Guard

Inlet guard is welded, formed wire. Outlet guard is expanded metal. Guards are in accordance with OSHA.



Inspection Door

Bolted or quick-release doors positioned as specified on scroll. Rubber gasket standard up to 250°F (121°C) Ceramic fiber gasket standard at temperatures above 250°F (122°C).



Outlet Damper

Outlet damper provides low cost flow control. Opposed blade manually controlled construction is standard. Also available with automatic controllers.



Shaft Seal

Teflon shaft seal good to 400°F (204°C). Ceramic fiber gasket material with steel cover plate above 400°F (205°C).

SPARK-RESISTANT CONSTRUCTION

Type A: All parts in contact with airstream are of nonferrous material. (Contact your local Cincinnati Fan sales representative).

Type B: Fabricated aluminum wheel and aluminum rubbing ring on motor shaft or fanshaft. **Maximum Temperature 200°F (93°C) all arrangements.**

Type C: Consists of aluminum inlet bell and aluminum plate on drive side of the fan. Maximum Temperature is the same as for high temperature construction below for each arrangement.

⚠ WARNING

The use of aluminum or aluminum alloys in the presence of steel which has been allowed to rust requires special consideration. Research by the U.S. Bureau of Mines and others has shown that aluminum impellers rubbing on rusty steel may cause high intensity sparking. The use of the above Standard in no way implies a guarantee of safety for any level of spark resistance. Spark-resistant construction also does not protect against ignition of explosive gases caused by catastrophic failure or from any airstream material that may be present in a system.

HIGH TEMPERATURE CONSTRUCTION

Standard Construction: Arrangement 9 suitable to 300°F (149°C) Arrangement 4 suitable to 200°F (93°C)

301° to 400°F Construction: Standard fan with heat slinger. Arrangement 9 only.

401° to 600°F Construction: Standard fan with heat slinger, high temperature shaft seal, gasketing and paint. Arrangement 9 only.

601° to 750°F Construction: Standard fan with heat slinger, 316 stainless steel fan shaft, high temperature shaft seal, gasketing and paint. Arrangement 9 only.

Wheel Size	Maximum RPM Aluminum Wheel [†]
120	5400
130	4999
150	4712
160	4285
180	3885
200	3574
220	3550
240	2837
270	2476
300	2300
330	2300
360	1950

Temperature Range °F	Maximum RPM Reduction Factor [†]
Up to 175°	0%
176° - 200°	2%
201° - 300°	4%
301° - 400°	7%
401° - 500°	11%
501° - 600°	15%
601° - 700°	20%
701° - 750°	30%

[†] Steel wheels only

[†] Up to 200°F (93°C). Consult your local Cincinnati Fan sales rep for higher temperature and/or higher RPMs

TEMPERATURE - ALTITUDE ADJUSTMENT

Air Temperature °F	Altitude in Feet Above Sea Level										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
0°	0.87	0.91	0.94	0.98	1.01	1.05	1.09	1.13	1.17	1.22	1.26
40°	0.94	0.98	1.02	1.06	1.10	1.14	1.19	1.23	1.28	1.32	1.36
70°	1.00	1.04	1.08	1.12	1.16	1.20	1.25	1.30	1.35	1.40	1.45
80°	1.02	1.06	1.10	1.14	1.19	1.23	1.28	1.33	1.38	1.43	1.48
100°	1.06	1.10	1.14	1.19	1.23	1.28	1.33	1.38	1.43	1.48	1.54
120°	1.09	1.14	1.18	1.23	1.28	1.32	1.38	1.43	1.48	1.53	1.58
140°	1.13	1.18	1.22	1.27	1.32	1.37	1.42	1.48	1.54	1.58	1.65
160°	1.17	1.22	1.26	1.31	1.36	1.42	1.47	1.53	1.59	1.64	1.70
180°	1.21	1.26	1.30	1.36	1.41	1.46	1.52	1.58	1.64	1.70	1.75
200°	1.25	1.29	1.34	1.40	1.45	1.51	1.57	1.63	1.69	1.75	1.81
250°	1.34	1.39	1.45	1.50	1.56	1.62	1.68	1.74	1.82	1.88	1.94
300°	1.43	1.49	1.55	1.61	1.67	1.74	1.80	1.87	1.94	2.00	2.08
350°	1.53	1.59	1.65	1.72	1.78	1.85	1.92	2.00	2.07	2.14	2.22
400°	1.62	1.69	1.75	1.82	1.89	1.96	2.04	2.12	2.20	2.27	2.35
450°	1.72	1.79	1.86	1.93	2.00	2.08	2.16	2.24	2.33	2.41	2.50
500°	1.81	1.88	1.96	2.03	2.11	2.19	2.28	2.36	2.46	2.54	2.62
550°	1.91	1.98	2.06	2.14	2.22	2.30	2.40	2.49	2.58	2.68	2.77
600°	2.00	2.08	2.16	2.24	2.33	2.42	2.50	2.61	2.71	2.80	2.90
650°	2.10	2.18	2.26	2.35	2.44	2.54	2.63	2.74	2.84	2.94	3.04
700°	2.19	2.27	2.36	2.46	2.55	2.65	2.75	2.86	2.97	3.06	3.18
750°	2.28	2.37	2.47	2.56	2.66	2.76	2.87	2.98	3.10	3.19	3.31

Fan performance tables are developed using standard air which is 70°F, 29.92" barometric pressure and .075 lb/ft³ per cubic foot. Density changes resulting from temperature or barometric pressure variations (such as higher altitudes) must be corrected to standard conditions before selecting a fan based on standard performance data. Temperature and/or altitude conversion factors are used in making corrections to standard conditions.

EXAMPLE: Select a belt driven fan to deliver 7000 CFM at 8" SP at 200°F, and 7000' altitude.

Step 1 - From the table, conversion factor is 1.63

Step 2 - Correct static pressure is:

$$1.63 \times 8" \text{ SP} = 13.04" \text{ SP at standard conditions}$$

Step 3 - Check SQBI catalog for 7500 CFM at 13" SP. We select a belt driven SQBI-200 Class IIP at 2613 RPM and 19.49 bhp.

Step 4 - Correct the bhp for the lighter air:

$$19.49 \div 1.63 = 11.96 \text{ bhp}$$

A 15 hp motor will suffice at 200°F and 7000' but not at standard conditions. Special motor insulation may be required due to altitude.

Direct Drive Ratings Table

CFM and bhp at Static Pressure Shown – Ratings at 70°F – .075" Density – Sea Level

Model	RPM	Wheel Type	Fan Width	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP	
				CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp
SQBI-120	1750	HDBI	1/2	639†	0.18										
	1750	SOBI	1/2	753†	0.24	523	0.25								
	1750	HDBI	3/4	959†	0.27										
	1750	SOBI	3/4	1129†	0.37	785	0.37								
	1750	HDBI	FULL	1279†	0.36										
	1750	SOBI	FULL	1505†	0.49	1046	0.50								
	3500	HDBI	1/2	1621†	1.27	1509†	1.32	1397†	1.38	1279†	1.42	1145†	1.45	972†	1.43
	3500	SOBI	1/2	1750†	1.73	1668†	1.81	1588†	1.89	1505†	1.96	1418†	2.01	1320†	2.05
	3500	HDBI	3/4	2431†	1.90	2263†	1.99	2096†	2.07	1918†	2.13	1717†	2.17	1457†	2.14
	3500	SOBI	3/4	2625†	2.60	2502†	2.71	2382†	2.83	2258†	2.93	2126†	3.02	1980†	3.08
SQBI-130	1750	HDBI	1/2	912†	0.28	548†	0.28								
	1750	SOBI	1/2	1037†	0.38	829†	0.41								
	1750	HDBI	3/4	1368†	0.42	822†	0.41								
	1750	SOBI	3/4	1555†	0.57	1244†	0.62								
	1750	HDBI	FULL	1824†	0.57	1097†	0.55								
	1750	SOBI	FULL	2073†	0.77	1658†	0.82								
	3500	HDBI	1/2	2198†	2.04	2073†	2.12	1950	2.19	1824†	2.27	1690†	2.32	1542†	2.36
	3500	SOBI	1/2	2342†	2.77	2251†	2.87	2163	2.97	2073	3.07	1981	3.15	1884	3.21
	3500	HDBI	3/4	3297†	3.05	3110	3.17	2925	3.29	2736	3.40	2536	3.49	2313	3.53
	3500	SOBI	3/4	3512	4.15	3377	4.31	3244	4.46	3110	4.60	2972	4.72	2826	4.82
SQBI-150	1750	HDBI	1/2	1317†	0.47	1002†	0.50								
	1750	SOBI	1/2	1469†	0.63	1259†	0.69	945†	0.68						
	1750	HDBI	3/4	1975†	0.70	1504†	0.75								
	1750	SOBI	3/4	2204†	0.95	1889†	1.03	1417†	1.02						
	1750	HDBI	FULL	2634†	0.94	2005†	1.00								
	1750	SOBI	FULL	2938†	1.27	2518†	1.37	1890†	1.36						
	3500	HDBI	1/2	3049	3.40	2909	3.51	2771	3.63	2634	3.75	2493	3.86	2345	3.94
	3500	SOBI	1/2	3237	4.66	3136	4.80	3037	4.95	2938	5.08	2839	5.20	2737	5.31
	3500	HDBI	3/4	4573	5.10	4363	5.26	4157	5.45	3951	5.62	3739	5.79	3518	5.91
	3500	SOBI	3/4	4856	6.98	4703	7.21	4555	7.42	4408	7.62	4259	7.81	4106	7.97
SQBI-160	1750	HDBI	1/2	1816†	0.74	1498†	0.80	986†	0.74						
	1750	SOBI	1/2	2005†	1.01	1783†	1.09	1516†	1.12						
	1750	HDBI	3/4	2724†	1.11	2247†	1.20	1479†	1.11						
	1750	SOBI	3/4	3008†	1.51	2675†	1.63	2273†	1.68						
	1750	HDBI	FULL	3632†	1.48	2996†	1.60	1972†	1.48						
	1750	SOBI	FULL	4010†	2.02	3566†	2.17	3031†	2.25						
	3500	HDBI	1/2	4090	5.45	3934	5.58	3782	5.74	3632	5.90	3481	6.06	3327	6.21
	3500	SOBI	1/2	4342	7.49	4228	7.69	4118	7.88	4010	8.07	3902	8.24	3793	8.40
	3500	HDBI	3/4	6135	8.18	5900	8.37	5673	8.61	5448	8.85	5222	9.09	4990	9.31
	3500	SOBI	3/4	6513	11.23	6343	11.54	6178	11.73	6015	12.10	5853	12.36	5689	12.61
SQBI-180	1750	HDBI	1/2	2538*	1.18	2212*	1.27	1824*	1.30						
	1750	SOBI	1/2	2970*	1.72	2750*	1.83	2515*	1.91	2227	1.94	1705*	1.86		
	1750	HDBI	3/4	3806*	1.77	3318*	1.90	2736*	1.95						
	1750	SOBI	3/4	4455	2.58	4125	2.74	3773	2.86	3341	2.91	2558	2.79		
	1750	HDBI	FULL	5075	2.36	4424	2.53	3649	2.60						
	1750	SOBI	FULL	5941	3.44	5500	3.65	5030	3.81	4454	3.89	3411	3.72		
	3500	HDBI	1/2	5572	8.80	5401	9.02	5236	9.23	5075	9.44	4915	9.64	4755	9.82
	3500	SOBI	1/2	6288	12.89	6168	13.20	6053	13.48	5941	13.74	5830	13.98	5721	14.21
	3500	HDBI	3/4	8358	13.20	8101	13.53	7855	13.85	7613	14.16	7373	14.46	7132	14.73
	3500	SOBI	3/4	9433	19.34	9252	19.80	9079	20.22	8911	20.61	8745	20.98	8581	21.31
SQBI-200	1750	HDBI	1/2	3411*	1.84	3058*	1.96	2676*	2.05	2177*	2.03				
	1750	SOBI	1/2	3911	2.63	3670	2.78	3424	2.90	3150	2.98	2806	3.01	2168	2.86
	1750	HDBI	3/4	5116	2.76	4587	2.94	4014	3.07	3265	3.05				
	1750	SOBI	3/4	5866	3.95	5505	4.17	5136	4.35	4726	4.47	4209	4.52	3252	4.30
	1750	HDBI	FULL	6821	3.68	6116	3.93	5352	4.09	4353	4.06				
	1750	SOBI	FULL	7822	5.26	7340	5.57	6848	5.80	6301	5.97	5612	6.02	4336	5.73
	3500	HDBI	1/2	7372	13.85	7183	14.14	7000	14.43	6821	14.71	6645	14.98	6470	15.23
	3500	SOBI	1/2	8207	19.91	8074	20.32	7946	20.69	7822	21.05	7700	21.38	7580	21.69
	3500	HDBI	3/4	11059	20.78	10774	21.21	10500	21.64	10233	22.06	9968	22.46	9705	22.85
	3500	SOBI	3/4	12310	29.86	12111	30.47	11919	31.04	11733	31.57	11550	32.07	11369	32.54
SQBI-200	3500	HDBI	FULL	14745	27.70	14365	28.28	14000	28.85	13625	29.41	13291	29.95	12940	30.47
	3500	SOBI	FULL	16414	39.81	16147	40.63	15892	41.39	15626	42.09	15400	42.76	15159	43.38

Performance shown is for installation AMCA type B Free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream.

Direct Drive Ratings Table

CFM and bhp at Static Pressure Shown – Ratings at 70°F – .075" Density – Sea Level

7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		Model
CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	
																SQBI-120
1204 †	2.06	1046	2.00													
1806 †	3.08	1570	3.00													SQBI-130
2408	4.11	2093	4.00													
																SQBI-150
2185	3.99	2005	4.00	1784	3.92	1448	3.66									
2631	5.41	2518	5.49	2396	5.54	2258	5.56	2097	5.54	1890	5.43	1890	5.10			
3278	5.99	3007	6.00	2677	5.88	2172	5.48									SQBI-160
3947	8.12	3777	8.23	3594	8.31	3388	8.35	3146	8.31	2835	8.14	2835	7.64			
4371	7.99	4010	8.00	3569	7.84	2896	7.31									
5262	10.82	5037	10.98	4791	11.08	4517	11.13	4194	11.08	3780	10.86	3780	10.19			
																SQBI-180
3166	6.33	2996	6.41	2810	6.45	2599	6.43	2343	6.29	1972	5.93	1972				
3681	8.55	3566	8.68	3446	8.80	3319	8.89	3182	8.95	3031	8.98	3031	8.96	2655	8.87	
4749	9.49	4494	9.62	4215	9.68	3898	9.64	3514	9.44	2958	8.90	2958				SQBI-200
5522	12.83	5350	13.03	5170	13.20	4979	13.33	4773	13.43	4547	13.47	4547	13.45	3982	13.31	
6332	12.66	5991	12.83	5619	12.91	5198	12.85	4686	12.58	3944	11.86	3944				
7363	17.10	7133	17.37	6893	17.59	6638	17.78	6364	17.90	6062	17.96	6062	17.93	5309	17.75	
																SQBI-120
6294	15.48	6116	15.70	5935	15.91	5748	16.09	5555	16.24	5352	16.36	5352	16.44	4904	16.46	
7460	21.98	7340	22.26	7220	22.52	7098	22.77	6975	23.00	6848	23.21	6848	23.40	6585	23.58	
9441	23.22	9174	23.55	8902	23.86	8622	24.13	8332	24.36	8028	24.54	8028	24.66	7357	24.69	
11190	32.98	11010	33.39	10830	33.78	10647	34.15	10462	34.49	10273	34.81	10273	35.10	9878	35.37	
12588	30.95	12232	31.41	11870	31.82	11497	32.18	11110	32.48	10704	32.72	10704	32.87	9809	32.92	
14920	43.97	14681	44.52	14440	45.05	14196	45.53	13949	45.99	13697	46.41	13697	46.80	13170	47.15	

Minimum Motor Frame Size Required

Symbols indicate minimum motor frame required even though the bhp is available in a smaller motor frame size

† 143T Motor Frame Minimum

* 182T Motor Frame Minimum

Additional ratings at bottom of pages 8 and 9

Additional ratings at bottom of pages 8 and 9

Additional ratings at bottom of pages 8 and 9



Direct Drive Ratings Table

CFM and bhp at Static Pressure Shown – Ratings at 70°F – .075" Density – Sea Level

Model	RPM	Wheel Type	Fan Width	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP		
				CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	
SQBI-220	1150	HDBI	1/2	2911	0.94	2243	1.01									
	1150	SQBI	1/2	3424	1.38	2932	1.49	2084	1.43							
	1150	HDBI	3/4	4367	1.41	3365	1.52									
	1150	SQBI	3/4	5136	2.07	4398	2.24	3126	2.15							
	1150	HDBI	FULL	5823	1.88	4486	2.02									
	1150	SQBI	FULL	6848	2.75	5864	2.99	4168	2.86							
	1750	HDBI	1/2	4918	3.04	4547	3.25	4170	3.43	3744	3.55	3172	3.53			
	1750	SQBI	1/2	5593	4.52	5303	4.78	5006	5.00	4685	5.18	4320	5.30	3860	5.30	
	1750	HDBI	3/4	7378	4.56	6820	4.88	6255	5.15	5616	5.33	4758	5.29			
	1750	SQBI	3/4	8390	6.77	7955	7.17	7509	7.51	7028	7.78	6480	7.95	5791	7.95	
1750	HDBI	FULL	9837	6.08	9094	6.51	8340	6.87	7488	7.10	6344	7.06				
1750	SQBI	FULL	11187	9.03	10606	9.55	10011	10.01	9371	10.37	8640	10.60	7721	10.60		
SQBI-240	1150	HDBI	1/2	4018	1.49	3358	1.62									
	1150	SQBI	1/2	4683	2.19	4171	2.37	3516	2.45							
	1150	HDBI	3/4	6027	2.23	5037	2.44									
	1150	SQBI	3/4	7025	3.28	6256	3.56	5274	3.67							
	1150	HDBI	FULL	8036	2.97	6716	3.25									
	1150	SQBI	FULL	9366	4.38	8342	4.75	7032	4.90							
	1750	HDBI	1/2	6657	4.86	6242	5.15	5836	5.42	5407	5.63	4919	5.76	4284	5.73	
	1750	SQBI	1/2	7547	7.25	7227	7.61	6905	7.93	6571	8.22	6210	8.44	5806	8.59	
	1750	HDBI	3/4	9986	7.28	9363	7.72	8754	8.12	8111	8.45	7379	8.64	6426	8.59	
	1750	SQBI	3/4	11321	10.87	10841	11.41	10358	11.90	9856	12.32	9315	12.66	8709	12.89	
1750	HDBI	FULL	13314	9.71	12484	10.30	11672	10.83	10815	11.26	9839	11.52	8568	11.45		
1750	SQBI	FULL	15095	14.49	14455	15.22	13811	15.87	13141	16.43	12420	16.88	11612	17.18		
SQBI-270	1150	HDBI	1/2	5524	2.36	4829	2.58	3947	2.66							
	1150	SQBI	1/2	6377	3.49	5830	3.76	5206	3.94	4341	3.94					
	1150	HDBI	3/4	8286	3.54	7244	3.87	5920	3.99							
	1150	SQBI	3/4	9566	5.23	8745	5.64	7809	5.91	6511	5.90					
	1150	HDBI	FULL	11048	4.73	9659	5.16	7894	5.32							
	1150	SQBI	FULL	12755	6.98	11660	7.52	10412	7.89	8682	7.87					
	1750	HDBI	1/2	9014	7.81	8548	8.20	8101	8.58	7648	8.92	7167	9.19	6627	9.36	
	1750	SQBI	1/2	10170	11.66	9816	12.15	9464	12.61	9105	13.02	8732	13.39	8334	13.69	
	1750	HDBI	3/4	13521	11.71	12821	12.31	12151	12.87	11472	13.37	10750	13.78	9941	14.04	
	1750	SQBI	3/4	15254	17.48	14724	18.22	14195	18.91	13658	19.53	13097	20.08	12501	20.53	
1750	HDBI	FULL	18028	15.61	1795	16.41	16201	17.16	15296	17.83	14334	18.37	13254	18.72		
1750	SQBI	FULL	20339	23.31	19632	24.30	18927	25.21	18210	26.04	17463	26.77	16668	27.37		
SQBI-300	1150	HDBI	1/2	7756	3.92	6997	4.25	6164	4.47	4992	4.44					
	1150	SQBI	1/2	8899	5.82	8300	6.22	7661	6.54	6914	6.73	5887	6.67			
	1150	HDBI	3/4	11633	5.88	10495	6.37	9246	6.71	7488	6.67					
	1150	SQBI	3/4	13349	8.73	12450	9.33	11491	9.81	10371	10.09	8831	9.99			
	1150	HDBI	FULL	15511	7.84	13994	8.49	12328	8.95	9984	8.88					
	1150	SQBI	FULL	17798	11.64	16600	12.45	15321	13.08	13828	13.46	11775	13.32			
	1750	HDBI	1/2	12493	13.09	11962	13.64	11460	14.18	10965	14.68	10459	15.12	9927	15.50	
	1750	SQBI	1/2	14061	19.61	13667	20.31	13275	20.96	12882	21.57	12482	22.13	12068	22.63	
	1750	HDBI	3/4	18740	19.63	17943	20.46	17190	21.26	16447	22.01	15688	22.69	14890	23.25	
	1750	SQBI	3/4	21092	29.42	20498	30.46	19912	31.44	19323	32.35	18723	33.19	18102	33.95	
1750	HDBI	FULL	24987	26.18	23925	27.28	22921	28.35	21929	29.35	20918	30.25	19854	31.00		
1750	SQBI	FULL	28122	39.23	27331	40.61	26550	41.92	25764	43.14	24964	44.26	24136	45.26		

Continued from page 7

Model	RPM	Wheel Type	Fan Width	15" SP		16" SP		17" SP		18" SP		19" SP		20" SP	
				CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp
SQBI-160	3500	SQBI	1/2	2382	8.65										
	3500	SQBI	3/4	3573	12.97										
	3500	SQBI	FULL	4764	17.30										
SQBI-180	3500	HDBI	1/2	2641	9.64										
	3500	SQBI	1/2	4616	15.51	4454	15.54	4273	15.53	4061	15.46	3797	15.29	3411	14.88
	3500	HDBI	3/4	3961	14.46										
	3500	SQBI	3/4	6924	23.27	6681	23.32	6409	23.30	6091	23.19	5696	22.93	5116	22.32
	3500	HDBI	FULL	5281	19.28										
3500	SQBI	FULL	9232	31.02	8908	31.09	8545	31.07	8122	30.93	7594	30.58	6821	29.76	
SQBI-200	3500	HDBI	1/2	4647	16.41	4353	16.26	3994	15.94	3485	15.26				
	3500	SQBI	1/2	6446	23.73	6301	23.87	6147	23.97	5984	24.05	5807	24.09	5612	24.09
	3500	HDBI	3/4	6971	24.62	6530	24.39	5992	23.91	5228	22.88				
	3500	SQBI	3/4	9669	35.60	9451	35.80	9221	35.96	8975	36.08	8710	36.14	8418	36.14
	3500	HDBI	FULL	9295	32.82	8706	32.52	7989	31.88	6971	30.51				
3500	SQBI	FULL	12892	47.46	12602	47.73	12295	47.95	11967	48.10	11613	48.19	11224	48.18	

Performance shown is for installation AMCA type B Free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream.

Direct Drive Ratings Table

7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		Model	
CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp		
																SOBI-220	
Minimum Motor Frame Size Required																	
3112	5.01																SOBI-240
Symbols indicate minimum motor frame required even though the bhp is available in a smaller motor frame size																	
4668	7.51																
6224	10.02																
5322	8.62	4663	8.43														
7983	12.94	6995	12.64														
10644	17.25	9326	16.86														
																SOBI-300	
5966	9.36	4956	8.94														
7898	13.90	7400	14.01	6795	13.93	5949	13.50										
8949	14.04	7434	13.41														
11846	20.86	11100	21.01	10192	20.90	8924	20.24										
11933	18.72	9912	17.88														
15795	27.81	14800	28.02	13589	27.87	11899	26.99										
																SOBI-300	
9347	15.78	8685	15.90	7862	15.76	6580	14.96										
11634	23.07	11170	23.42	10663	23.67	10094	23.78	9423	23.68	8563	23.22	7179	21.86				
14.21	23.66	13028	23.85	11793	23.64	9870	22.44										
17451	34.60	16755	35.13	15995	35.50	15141	35.66	14134	35.51	12845	34.83	10768	32.78				
18695	31.55	17370	31.80	15724	31.52	13161	29.92										
23267	46.14	22340	46.84	21327	47.34	20188	47.55	18846	47.35	17127	46.44	14357	43.71				

21" SP		22" SP		23" SP		24" SP		Model
CFM	bhp	CFM	bhp	CFM	bhp	CFM	bhp	
								SOBI-160
								SOBI-180
5393	24.03	5136	23.87	4814	23.57	4336	22.91	SOBI-200
8089	36.04	7704	35.81	7220	35.35	6504	34.36	
10785	48.05	10271	47.75	9627	47.13	8672	45.81	

CAUTION All fans and blowers shown have rotating parts and pinch points. Severe personal injury can result if operated without guards. Stay away from rotating equipment unless it is disconnected from its power source.

SQBI-120

Wheel
Diameter - 13.25"

Outlet ID
Size - 10.6875" x 12"
Area - .89 ft² ID

Inlet OD*
Size - 13.44"
Area - .98 ft² OD

All wheels are Class IIP, SQBI type

Volume CFM	O.V. fpm	0" SP		½" SP		1" SP		1 ½" SP		2" SP		2 ½" SP		3" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
750	881	714	0.03	1002	0.10	1242	0.18	1463	0.28						
900	1057	857	0.05	1109	0.13	1317	0.22	1513	0.32	1699	0.44				
1050	1233	1000	0.08	1226	0.17	1410	0.27	1584	0.38	1751	0.50	1912	0.63	2067	0.78
1200	1409	1143	0.12	1348	0.22	1515	0.33	1672	0.45	1823	0.58	1969	0.72	2112	0.86
1350	1585	1286	0.16	1474	0.28	1628	0.40	1771	0.53	1908	0.67	2042	0.81	2173	0.97
1500	1761	1429	0.23	1603	0.35	1746	0.49	1878	0.63	2005	0.77	2128	0.93	2249	1.09
1650	1937	1572	0.30	1734	0.44	1868	0.58	1991	0.73	2109	0.89	2223	1.05	2335	1.22
1800	2113	1715	0.39	1866	0.54	1992	0.70	2108	0.86	2219	1.03	2326	1.20	2430	1.38
1950	2290	1857	0.50	2000	0.66	2120	0.83	2229	1.00	2333	1.18	2434	1.36	2532	1.55
2100	2466	2000	0.62	2135	0.80	2249	0.98	2353	1.16	2452	1.35	2547	1.54	2640	1.74
2250	2642	2143	0.76	2270	0.95	2379	1.14	2479	1.34	2573	1.54	2664	1.74	2752	1.95
2400	2818	2286	0.93	2407	1.13	2511	1.33	2606	1.54	2696	1.75	2783	1.96	2867	2.18
2550	2994	2429	1.11	2544	1.33	2643	1.54	2735	1.76	2822	1.98	2905	2.21	2985	2.44
2700	3170	2572	1.32	2681	1.55	2777	1.78	2865	2.01	2948	2.24	3028	2.48	3106	2.72
2850	3346	2715	1.55	2819	1.79	2911	2.03	2996	2.28	3077	2.52	3154	2.77	3228	3.02
3000	3522	2858	1.81	2958	2.06	3046	2.32	3128	2.57	3206	2.83	3281	3.09	3353	3.35
3150	3699	3001	2.09	3096	2.36	3182	2.63	3261	2.89	3337	3.16	3409	3.43	3478	3.71
3300	3875	3143	2.41	3235	2.69	3318	2.97	3395	3.25	3468	3.53	3538	3.81	3605	4.10
3450	4051	3286	2.75	3375	3.04	3455	3.34	3529	3.63	3600	3.92	3668	4.22	3733	4.51
3600	4227	3429	3.13	3514	3.43	3592	3.74	3664	4.04	3733	4.35	3799	4.65	3862	4.96
3750	4403	3572	3.53	3654	3.85	3729	4.17	3799	4.49	3866	4.80	3930	5.12	3992	5.44
3900	4579	3715	3.98	3794	4.31	3867	4.64	3935	4.96	4000	5.29				
4050	4755	3858	4.45	3934	4.80	4005	5.14								
4200	4931	4001	4.96												

Minimum motor frame size is 56
Maximum motor frame size is 213T

Volume CFM	O.V. fpm	4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
1200	1409	2384	1.19												
1350	1585	2426	1.30	2667	1.67										
1500	1761	2483	1.43	2709	1.81	2927	2.21								
1650	1937	2553	1.58	2765	1.97	2970	2.39	3169	2.83						
1800	2113	2634	1.75	2833	2.15	3026	2.58	3214	3.03	3397	3.51	3576	4.01		
1950	2290	2724	1.94	2910	2.36	3093	2.80	3271	3.26	3445	3.75	3615	4.26	3782	4.79
2100	2466	2821	2.15	2996	2.58	3169	3.04	3337	3.51	3503	4.01	3665	4.53	3825	5.07
2250	2642	2923	2.38	3090	2.83	3253	3.30	3413	3.79	3570	4.30	3725	4.83	3877	5.39
2400	2818	3030	2.63	3188	3.10	3343	3.59	3496	4.10	3646	4.62	3793	5.17	3939	5.73
2550	2994	3141	2.91	3292	3.40	3440	3.90	3585	4.42	3728	4.97	3869	5.53	4008	6.10
2700	3170	3255	3.21	3400	3.72	3541	4.24	3680	4.78	3817	5.34	3951	5.91		
2850	3346	3372	3.53	3511	4.06	3647	4.61	3780	5.16	3911	5.74	4040	6.33		
3000	3522	3491	3.89	3625	4.44	3756	5.00	3883	5.58	4009	6.17				
3150	3699	3612	4.27	3742	4.84	3867	5.42	3990	6.02						
3300	3875	3735	4.68	3860	5.27	3982	5.87								
3450	4051	3859	5.12	3981	5.73										
3600	4227	3985	5.59												

Volume CFM	O.V. fpm	11" SP	
		RPM	bhp
1950	2290	3944	5.34
2100	2466	3981	5.64
2250	2642	4027	5.96

*Inlet OD if optional inlet collar is ordered

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

SQBI-130

Wheel
Diameter - 14.56"

Outlet ID
Size - 11.75" x 13.25"
Area - 1.08 ft² ID

Inlet OD*
Size - 15.44"
Area - 1.30 ft² OD

All wheels are Class IIP, SQBI type

Volume CFM	O.V. fpm	0" SP		½" SP		1" SP		1 ½" SP		2" SP		2 ½" SP		3" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
900	867	646	0.03	909	0.12	1128	0.22	1330	0.34						
1100	1060	790	0.06	1017	0.16	1205	0.27	1381	0.40	1548	0.54	1706	0.70		
1300	1252	933	0.10	1135	0.21	1300	0.34	1455	0.47	1604	0.62	1747	0.79	1885	0.96
1500	1445	1077	0.16	1259	0.28	1407	0.42	1546	0.57	1680	0.72	1809	0.90	1935	1.08
1700	1637	1221	0.23	1386	0.37	1522	0.52	1649	0.68	1770	0.85	1888	1.03	2003	1.22
1900	1830	1364	0.32	1517	0.48	1643	0.64	1759	0.82	1870	1.00	1978	1.19	2084	1.39
2100	2023	1508	0.43	1649	0.61	1767	0.79	1875	0.97	1978	1.17	2078	1.37	2176	1.58
2300	2215	1651	0.56	1783	0.76	1894	0.95	1995	1.15	2092	1.36	2185	1.58	2277	1.80
2500	2408	1795	0.72	1918	0.93	2023	1.15	2119	1.36	2210	1.58	2298	1.81	2383	2.05
2700	2601	1938	0.90	2054	1.14	2153	1.37	2245	1.60	2331	1.84	2414	2.08	2495	2.32
2900	2793	2082	1.12	2191	1.37	2285	1.62	2372	1.87	2455	2.12	2534	2.37	2611	2.63
3100	2986	2226	1.37	2329	1.64	2419	1.90	2502	2.17	2581	2.43	2656	2.70	2729	2.98
3300	3179	2369	1.65	2467	1.94	2553	2.22	2633	2.50	2708	2.79	2781	3.07	2851	3.36
3500	3371	2513	1.97	2606	2.27	2688	2.57	2765	2.87	2837	3.17	2907	3.47	2974	3.78
3700	3564	2656	2.32	2745	2.65	2824	2.97	2898	3.28	2968	3.60	3035	3.92	3099	4.24
3900	3757	2800	2.72	2884	3.07	2961	3.40	3032	3.73	3099	4.07	3164	4.40	3226	4.74
4100	3949	2944	3.16	3024	3.52	3098	3.88	3166	4.23	3231	4.58	3294	4.93	3354	5.28
4300	4142	3087	3.65	3165	4.03	3235	4.40	3302	4.77	3365	5.13	3425	5.50	3484	5.87
4500	4334	3231	4.18	3305	4.58	3373	4.97	3437	5.35	3498	5.74	3557	6.12	3614	6.51
4700	4527	3374	4.76	3446	5.18	3512	5.59	3574	5.99	3633	6.39	3690	6.79	3745	7.19
4900	4720	3518	5.40	3587	5.83	3650	6.26	3711	6.68						
5100	4912	3662	6.09	3728	6.54										

Minimum motor frame size is 56
Maximum motor frame size is 213T

Volume CFM	O.V. fpm	4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
1500	1445	2177	1.48												
1700	1637	2226	1.63	2439	2.09	2642	2.59								
1900	1830	2290	1.82	2488	2.28	2680	2.79	2864	3.33						
2100	2023	2367	2.02	2551	2.51	2731	3.03	2905	3.58	3074	4.16	3239	4.78		
2300	2215	2454	2.26	2626	2.76	2795	3.30	2959	3.86	3119	4.46	3276	5.08	3428	5.74
2500	2408	2550	2.53	2711	3.05	2869	3.60	3024	4.18	3176	4.79	3324	5.42	3470	6.09
2700	2601	2652	2.84	2804	3.38	2953	3.94	3099	4.54	3243	5.16	3384	5.81	3522	6.49
2900	2793	2759	3.17	2903	3.73	3044	4.32	3182	4.93	3319	5.57	3452	6.24	3584	6.93
3100	2986	2871	3.54	3008	4.13	3142	4.74	3273	5.37	3402	6.03	3529	6.71	3655	7.41
3300	3179	2986	3.95	3117	4.56	3244	5.19	3369	5.85	3492	6.53	3614	7.22	3734	7.95
3500	3371	3104	4.40	3229	5.04	3351	5.69	3471	6.37	3588	7.07	3704	7.79		
3700	3564	3224	4.89	3344	5.55	3462	6.23	3576	6.93	3689	7.65				
3900	3757	3347	5.42	3462	6.11	3575	6.82	3685	7.54						
4100	3949	3471	5.99	3583	6.71	3691	7.45								
4300	4142	3596	6.61	3704	7.36										
4500	4334	3723	7.28												

Volume CFM	O.V. fpm	11" SP	
		RPM	bhp
2300	2215	3577	6.42
2500	2408	3613	6.78
2700	2601	3659	7.19
2900	2793	3714	7.64

*Inlet OD if optional inlet collar is ordered

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

SQBI-150

Wheel
Diameter - 16.18"

Outlet ID
Size - 13.0625" x 14.625"
Area - 1.33 ft² ID

Inlet OD*
Size - 16.56"
Area - 1.49 ft² OD

All wheels are Class IIP, SQBI type

Volume CFM	O.V. fpm	0" SP		½" SP		1" SP		1 ½" SP		2" SP		2 ½" SP		3" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
1000	782	523	0.03	779	0.12	992	0.24								
1250	977	654	0.06	871	0.17	1051	0.30	1219	0.45	1377	0.63				
1500	1173	785	0.10	975	0.23	1131	0.38	1279	0.54	1419	0.72	1554	0.92	1683	1.14
1750	1368	916	0.16	1086	0.31	1225	0.47	1356	0.65	1481	0.84	1603	1.05	1721	1.27
2000	1564	1046	0.24	1201	0.41	1328	0.59	1445	0.78	1559	0.98	1669	1.20	1776	1.43
2250	1759	1177	0.34	1319	0.54	1435	0.73	1543	0.94	1647	1.15	1747	1.38	1845	1.63
2500	1955	1308	0.47	1439	0.69	1547	0.90	1647	1.12	1743	1.36	1835	1.60	1926	1.85
2750	2150	1439	0.63	1560	0.86	1662	1.10	1756	1.34	1845	1.59	1931	1.85	2015	2.11
3000	2346	1569	0.81	1683	1.07	1779	1.33	1867	1.59	1951	1.86	2031	2.13	2110	2.41
3250	2541	1700	1.03	1807	1.32	1898	1.59	1981	1.87	2060	2.16	2136	2.45	2210	2.75
3500	2736	1831	1.29	1931	1.60	2018	1.90	2097	2.19	2172	2.50	2244	2.81	2315	3.12
3750	2932	1962	1.59	2056	1.92	2139	2.24	2215	2.56	2286	2.88	2355	3.21	2422	3.54
4000	3127	2093	1.93	2182	2.28	2261	2.62	2333	2.96	2402	3.30	2468	3.65	2532	4.00
4250	3323	2223	2.31	2308	2.68	2384	3.05	2453	3.41	2519	3.78	2583	4.14	2644	4.51
4500	3518	2354	2.74	2435	3.14	2507	3.53	2574	3.91	2638	4.30	2699	4.68	2757	5.07
4750	3714	2485	3.22	2562	3.65	2632	4.06	2696	4.46	2757	4.87	2816	5.27	2873	5.68
5000	3909	2616	3.76	2689	4.20	2756	4.64	2819	5.06	2878	5.49	2934	5.92	2989	6.35
5250	4105	2747	4.35	2817	4.82	2881	5.28	2942	5.73	2999	6.17	3054	6.62	3107	7.07
5500	4300	2877	5.01	2945	5.49	3007	5.97	3065	6.45	3121	6.91	3174	7.38	3225	7.85
5750	4496	3008	5.72	3073	6.23	3133	6.73	3189	7.23	3243	7.72	3295	8.21	3345	8.70
6000	4691	3139	6.50	3201	7.03	3259	7.56	3314	8.07	3366	8.59	3416	9.10		
6250	4887	3270	7.35	3330	7.90	3386	8.45	3439	8.99						
6500	5082	3400	8.26	3459	8.84										

Minimum motor frame size is 56
Maximum motor frame size is 254T

Volume CFM	O.V. fpm	4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
1750	1368	1946	1.76												
2000	1564	1984	1.94	2181	2.50										
2250	1759	2036	2.15	2220	2.72	2397	3.35	2567	4.01						
2500	1955	2102	2.40	2273	2.99	2439	3.62	2599	4.30	2755	5.02				
2750	2150	2178	2.68	2338	3.29	2493	3.94	2644	4.64	2791	5.37	2935	6.14	3075	6.95
3000	2346	2263	3.01	2412	3.64	2557	4.31	2700	5.02	2839	5.76	2975	6.55	3109	7.37
3250	2541	2354	3.37	2494	4.03	2631	4.72	2765	5.45	2896	6.21	3026	7.01	3153	7.84
3500	2736	2451	3.77	2582	4.46	2712	5.17	2838	5.92	2963	6.71	3086	7.52	3206	8.37
3750	2932	2551	4.22	2676	4.94	2799	5.68	2919	6.45	3037	7.26	3153	8.09	3268	8.96
4000	3127	2655	4.72	2774	5.46	2891	6.23	3005	7.03	3117	7.86	3228	8.72	3337	9.60
4250	3323	2762	5.26	2876	6.04	2987	6.84	3096	7.67	3203	8.52	3309	9.40	3413	10.31
4500	3518	2871	5.86	2980	6.67	3087	7.50	3191	8.36	3293	9.24	3394	10.14		
4750	3714	2982	6.51	3087	7.35	3189	8.22	3289	9.10	3388	10.01				
5000	3909	3095	7.21	3196	8.09	3295	8.99	3391	9.91						
5250	4105	3209	7.97	3307	8.89	3402	9.83								
5500	4300	3324	8.80	3419	9.75										
5750	4496	3441	9.68												

Volume CFM	O.V. fpm	11" SP		12" SP	
		RPM	bhp	RPM	bhp
3000	2346	3239	8.22	3367	9.11
3250	2541	3278	8.71	3400	9.61
3500	2736	3325	9.25	3442	10.16
3750	2932	3382	9.85		
4000	3127	3446	10.52		

*Inlet OD if optional inlet collar is ordered

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

SQBI-160

Wheel
Diameter - 17.81"

Outlet ID
Size - 14.375" x 16"
Area - 1.60 ft² ID

Inlet OD*
Size - 18.5625"
Area - 1.88 ft² ID

All wheels are SQBI Type
Class II = light text face above Class IIP
Class IIP = bold text face

Volume CFM	O.V. fpm	0" SP		½" SP		1" SP		1 ½" SP		2" SP		2 ½" SP		3" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
Minimum motor frame size is 56 regardless of bhp															
1500	971	588	0.07	787	0.20	952	0.36	1106	0.55	1250	0.76				
1800	1165	706	0.12	880	0.28	1023	0.45	1158	0.65	1287	0.87	1410	1.11	1528	1.38
2100	1359	824	0.19	980	0.37	1107	0.56	1226	0.77	1342	1.00	1453	1.26	1561	1.53
2400	1553	941	0.28	1083	0.49	1199	0.70	1306	0.93	1410	1.17	1511	1.44	1609	1.72
2700	1748	1059	0.40	1189	0.64	1295	0.87	1394	1.12	1489	1.38	1581	1.65	1671	1.95
3000	1942	1177	0.55	1297	0.81	1396	1.07	1487	1.34	1574	1.62	1659	1.91	1742	2.22
3300	2136	1294	0.74	1406	1.02	1499	1.31	1584	1.59	1666	1.89	1744	2.20	1821	2.52
3600	2330	1412	0.96	1516	1.27	1604	1.58	1684	1.89	1761	2.21	1835	2.54	1907	2.88
3900	2524	1530	1.22	1627	1.56	1711	1.89	1787	2.23	1859	2.57	1929	2.91	1996	3.27
4200	2719	1647	1.52	1739	1.89	1818	2.25	1891	2.61	1960	2.97	2026	3.34	2090	3.72
4500	2913	1765	1.87	1852	2.27	1927	2.65	1997	3.04	2062	3.42	2125	3.81	2186	4.21
4800	3107	1883	2.27	1965	2.69	2037	3.11	2103	3.51	2166	3.93	2226	4.34	2285	4.76
5100	3301	2000	2.72	2079	3.17	2147	3.61	2211	4.05	2271	4.48	2329	4.92	2385	5.36
5400	3495	2118	3.23	2192	3.71	2259	4.18	2320	4.64	2378	5.10	2433	5.56	2487	6.03
5700	3690	2236	3.79	2307	4.30	2370	4.80	2429	5.29	2485	5.77	2539	6.26	2591	6.75
6000	3884	2353	4.42	2421	4.96	2482	5.49	2539	6.00	2593	6.51	2645	7.02	2695	7.54
6300	4078	2471	5.12	2536	5.69	2595	6.24	2650	6.78	2702	7.32	2752	7.86	2801	8.39
6600	4272	2589	5.89	2651	6.48	2708	7.06	2761	7.63	2812	8.20	2860	8.76	2907	9.32
6900	4466	2706	6.73	2766	7.35	2821	7.96	2873	8.55	2922	9.15	2969	9.73	3015	10.32
7200	4660	2824	7.65	2882	8.30	2935	8.93	2985	9.55	3032	10.17	3078	10.79	3123	11.40
7500	4855	2942	8.64	2997	9.32	3049	9.98	3097	10.63	3143	11.28				
7800	5049	3060	9.72	3113	10.43										

Volume CFM	O.V. fpm	4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
2100	1359	1767	2.13												
2400	1553	1799	2.34	1980	3.02										
2700	1748	1845	2.58	2014	3.28	2175	4.04								
3000	1942	1904	2.87	2060	3.59	2212	4.36	2359	5.19	2501	6.06				
3300	2136	1971	3.21	2117	3.94	2259	4.73	2397	5.58	2532	6.47	2664	7.41	2791	8.39
3600	2330	2047	3.59	2183	4.35	2316	5.16	2446	6.02	2574	6.93	2699	7.88	2821	8.88
3900	2524	2128	4.02	2256	4.81	2381	5.65	2504	6.53	2624	7.45	2743	8.42	2859	9.44
4200	2719	2214	4.50	2335	5.32	2453	6.18	2569	7.09	2683	8.04	2795	9.03	2906	10.06
4500	2913	2304	5.03	2419	5.89	2531	6.78	2640	7.71	2749	8.68	2855	9.69	2961	10.74
4800	3107	2397	5.62	2506	6.51	2613	7.44	2717	8.40	2820	9.40	2922	10.43	3022	11.50
5100	3301	2493	6.27	2597	7.20	2699	8.16	2798	9.15	2897	10.18	2993	11.24	3089	12.33
5400	3495	2591	6.97	2691	7.94	2788	8.94	2883	9.97	2977	11.02	3070	12.11		
5700	3690	2690	7.74	2787	8.75	2880	9.79	2972	10.85	3062	11.94				
6000	3884	2792	8.57	2884	9.63	2974	10.70	3062	11.81	3149	12.93				
6300	4078	2894	9.48	2984	10.58	3071	11.69								
6600	4272	2998	10.45	3085	11.60										
6900	4466	3102	11.50												
Minimum motor frame size is 56 (Class II) Maximum motor frame size is 256T (Class IIP)															

Volume CFM	O.V. fpm	11" SP		12" SP	
		RPM	bhp	RPM	bhp
3600	2330	2940	9.92	3057	11.00
3900	2524	2973	10.49	3085	11.59
4200	2719	3015	11.13	3122	12.24
4500	2913	3064	11.83		
4800	3107	3121	12.61		

***Inlet OD if optional inlet collar is ordered**

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

SQBI-180

Wheel
Diameter - 19.68"

Outlet ID
Size - 18.875" x 17.8125"
Area - 1.96 ft² ID

Inlet OD*
Size - 20.5625"
Area - 2.31 ft² ID

All wheels are SQBI Type
Class II = light text face above Class IIP
Class IIP = bold text face

Volume CFM	O.V. fpm	0" SP		½" SP		1" SP		1 ½" SP		2" SP		2 ½" SP		3" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
Minimum motor frame size is 56 regardless of bhp															
2200	1154	600	0.13	747	0.29	870	0.48	991	0.70	1110	0.95	1225	1.24		
2600	1364	709	0.21	839	0.41	946	0.61	1050	0.84	1152	1.10	1253	1.39	1353	1.71
3000	1574	818	0.32	936	0.55	1031	0.78	1122	1.02	1212	1.29	1301	1.59	1389	1.91
3400	1784	927	0.47	1035	0.73	1122	0.98	1204	1.25	1284	1.53	1363	1.83	1441	2.16
3800	1994	1036	0.65	1135	0.95	1216	1.23	1291	1.52	1363	1.82	1435	2.14	1505	2.47
4200	2204	1145	0.88	1237	1.21	1313	1.52	1382	1.84	1449	2.16	1514	2.49	1579	2.85
4600	2414	1255	1.16	1340	1.53	1411	1.87	1476	2.21	1539	2.55	1599	2.91	1659	3.28
5000	2624	1364	1.48	1444	1.89	1511	2.26	1573	2.63	1631	3.00	1688	3.38	1743	3.77
5400	2834	1473	1.87	1548	2.31	1612	2.72	1671	3.12	1726	3.51	1779	3.92	1832	4.33
5800	3044	1582	2.32	1653	2.80	1714	3.24	1770	3.67	1822	4.09	1873	4.52	1923	4.96
6200	3253	1691	2.83	1758	3.35	1817	3.82	1870	4.28	1920	4.74	1969	5.20	2016	5.65
6600	3463	1800	3.41	1864	3.97	1920	4.48	1971	4.97	2019	5.46	2066	5.94	2111	6.43
7000	3673	1909	4.07	1970	4.66	2024	5.21	2073	5.74	2119	6.25	2164	6.77	2207	7.28
7400	3883	2018	4.81	2076	5.44	2128	6.02	2175	6.58	2220	7.13	2263	7.68	2304	8.22
7800	4093	2127	5.64	2183	6.30	2232	6.92	2278	7.51	2321	8.10	2363	8.67	2403	9.25
8200	4303	2236	6.55	2289	7.25	2337	7.90	2381	8.53	2423	9.15	2463	9.76	2502	10.36
8600	4513	2345	7.55	2396	8.29	2442	8.98	2485	9.65	2526	10.30	2565	10.94	2602	11.58
9000	4723	2454	8.66	2503	9.43	2548	10.16	2589	10.86	2629	11.55	2667	12.22	2703	12.89
9400	4933	2564	9.87	2611	10.67	2654	11.44	2694	12.18	2732	12.90	2769	13.60	2804	14.30
9800	5143	2673	11.18	2718	12.02	2760	12.83	2799	13.60	2836	14.36				

Volume CFM	O.V. fpm	4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
3000	1574	1562	2.63	1728	3.45										
3400	1784	1597	2.89	1749	3.71	1898	4.62								
3800	1994	1646	3.21	1785	4.04	1922	4.95	2056	5.93	2186	6.99				
4200	2204	1707	3.60	1834	4.44	1959	5.35	2084	6.34	2206	7.40	2326	8.52	2443	9.71
4600	2414	1776	4.06	1893	4.91	2008	5.83	2123	6.83	2237	7.89	2350	9.01	2460	10.21
5000	2624	1852	4.59	1960	5.46	2067	6.40	2174	7.40	2279	8.47	2385	9.60	2489	10.79
5400	2834	1934	5.18	2034	6.08	2134	7.04	2233	8.06	2331	9.14	2429	10.27	2527	11.47
5800	3044	2019	5.85	2113	6.79	2206	7.77	2299	8.81	2391	9.90	2483	11.05	2574	12.25
6200	3253	2107	6.59	2196	7.57	2284	8.59	2371	9.65	2458	10.76	2544	11.93	2630	13.14
6600	3463	2198	7.42	2282	8.43	2365	9.49	2448	10.58	2529	11.72	2611	12.90	2692	14.14
7000	3673	2290	8.32	2371	9.38	2450	10.48	2528	11.61	2606	12.77	2683	13.98	2759	15.24
7400	3883	2384	9.31	2462	10.42	2538	11.56	2612	12.72	2686	13.93	2759	15.17	2832	16.44
7800	4093	2480	10.39	2554	11.55	2627	12.73	2698	13.94	2769	15.18	2839	16.45		
8200	4303	2577	11.57	2649	12.78	2718	14.01	2787	15.26						
8600	4513	2674	12.84	2744	14.11	2811	15.39								
9000	4723	2773	14.21	2840	15.53										

Volume CFM	O.V. fpm	11" SP		12" SP		13" SP	
		RPM	bhp	RPM	bhp	RPM	bhp
4600	2414	2569	11.46	2676	12.77		
5000	2624	2592	12.04	2693	13.35	2793	14.72
5400	2834	2624	12.73	2720	14.04	2815	15.41
5800	3044	2666	13.52	2756	14.83	2846	16.20
6200	3253	2716	14.41	2801	15.73		
6600	3463	2773	15.42				
7000	3673	2836	16.54				

*Inlet OD if optional inlet collar is ordered

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

SQBI-220

Wheel

Diameter - 24"

Outlet ID

Size - 19.375" x 21.625"

Area - 2.91 ft² ID

Inlet OD*

Size - 24.5625"

Area - 3.29 ft² ID

All wheels are SQBI Type

Class II = light text face above Class IIP

Class IIP = bold text face

Class III = italic face below Class IIP

Volume CFM	O.V. fpm	0" SP		1/2" SP		1" SP		1 1/2" SP		2" SP		3" SP		4" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
		Minimum motor frame size is 143T regardless of bhp													
3600	1268	535	0.24	653	0.53	756	0.86	854	1.22	949	1.63	1128	2.57		
4200	1479	624	0.38	729	0.72	819	1.08	905	1.47	990	1.91	1152	2.88	1304	3.99
4800	1691	713	0.57	808	0.96	889	1.35	966	1.78	1041	2.24	1187	3.25	1327	4.40
5400	1902	802	0.81	888	1.24	962	1.68	1032	2.15	1100	2.63	1232	3.70	1361	4.88
6000	2114	891	1.12	970	1.60	1039	2.08	1103	2.58	1165	3.10	1286	4.22	1404	5.45
6600	2325	980	1.48	1053	2.01	1117	2.54	1177	3.08	1234	3.64	1346	4.83	1455	6.10
7200	2536	1069	1.93	1137	2.51	1197	3.08	1253	3.66	1307	4.26	1410	5.51	1511	6.85
7800	2748	1158	2.45	1222	3.08	1278	3.70	1331	4.32	1381	4.96	1479	6.29	1573	7.69
8400	2959	1247	3.06	1307	3.74	1360	4.41	1410	5.08	1458	5.76	1550	7.16	1638	8.63
9000	3170	1337	3.76	1393	4.49	1443	5.21	1491	5.92	1536	6.65	1623	8.13	1707	9.67
9600	3382	1426	4.57	1479	5.35	1527	6.11	1572	6.87	1615	7.64	1698	9.21	1777	10.82
10200	3593	1515	5.48	1565	6.31	1611	7.12	1654	7.93	1695	8.74	1774	10.39	1850	12.09
10800	3804	1604	6.50	1652	7.38	1695	8.24	1737	9.10	1776	9.96	1852	11.70	1924	13.47
11400	4016	1693	7.65	1738	8.58	1780	9.49	1820	10.39	1858	11.30	1931	13.12	2000	14.98
12000	4227	1782	8.92	1825	9.90	1866	10.86	1904	11.81	1940	12.77	2010	14.68	2077	16.62
12600	4438	1871	10.33	1913	11.35	1951	12.36	1988	13.37	2023	14.37	2091	16.38	2155	18.40
13200	4650	1960	11.88	2000	12.95	2037	14.01	2072	15.06	2107	16.11	2172	18.21	2234	20.33
13800	4861	2049	13.57	2087	14.70	2123	15.80	2157	16.90	2190	18.00	2253	20.19	2314	22.40
14400	5072	2139	15.42	2175	16.59	2210	17.75	2243	18.90	2274	20.05	2336	22.33	<i>2394</i>	<i>24.63</i>
15000	5284	2228	17.43	2263	18.65	2296	19.86	2328	21.06	2359	22.25	<i>2418</i>	<i>24.64</i>	<i>2475</i>	<i>27.02</i>
15600	5495	2317	19.60	2351	20.88	2383	22.14	2414	23.38	2444	24.63	2501	27.10	2556	29.59
16200	5707	2406	21.95	2438	23.28	2470	24.59	2500	25.88	2529	27.17	2585	29.75	2638	32.32

Volume CFM	O.V. fpm	5" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
4200	1479	1446	5.21												
4800	1691	1461	5.65	1588	7.02										
5400	1902	1486	6.17	1605	7.57	1721	9.06	1831	10.64						
6000	2114	1519	6.78	1632	8.21	1740	9.74	1846	11.35	1948	13.05	2047	14.82		
6600	2325	1561	7.48	1666	8.95	1768	10.51	1868	12.16	1966	13.89	2061	15.70	2153	17.58
7200	2536	1611	8.27	1708	9.79	1804	11.39	1898	13.07	1991	14.84	2081	16.68	2170	18.59
7800	2748	1665	9.17	1757	10.73	1847	12.37	1936	14.10	2023	15.90	2109	17.78	2194	19.72
8400	2959	1725	10.17	1811	11.78	1895	13.48	1979	15.24	2062	17.08	2143	19.00	2224	20.98
9000	3170	1788	11.28	1869	12.95	1949	14.69	2028	16.51	2106	18.39	2183	20.35	2260	22.37
9600	3382	1855	12.50	1931	14.23	2007	16.03	2082	17.90	2156	19.83	2229	21.83	2302	23.90
10200	3593	1924	13.83	1997	15.64	2068	17.50	2139	19.42	2209	21.41	2279	23.45	2348	25.57
10800	3804	1995	15.29	2064	17.17	2133	19.09	2200	21.08	2267	23.12	2333	25.22	<i>2399</i>	<i>27.38</i>
11400	4016	2068	16.88	2134	18.83	2199	20.82	2264	22.87	2328	24.97	<i>2391</i>	<i>27.13</i>	<i>2454</i>	<i>29.34</i>
12000	4227	2142	18.60	2206	20.62	2268	22.69	2330	24.81	2391	26.97	2452	29.19	2512	31.46
12600	4438	2218	20.47	2279	22.56	2339	24.70	2399	26.89	2457	29.12	2515	31.40	2573	33.73
13200	4650	2295	22.47	2354	24.65	2412	26.87	2469	29.13	2525	31.43	2581	33.77	2637	36.16
13800	4861	2372	24.63	2429	26.89	2485	29.19	2540	31.52	2595	33.89	2649	36.31		
14400	5072	2451	26.95	2506	29.29	2560	31.67	2613	34.08						
15000	5284	2530	29.43	2583	31.86	2636	34.32								
15600	5495	2610	32.08	2662	34.60										

Volume CFM	O.V. fpm	12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
6600	2325	2242	19.52								
7200	2536	2256	20.58	2341	22.63	2423	24.74	2504	26.92		
7800	2748	2277	21.74	2358	23.83	2438	25.98	2516	28.19	2593	30.46
8400	2959	2303	23.04	2381	25.16	2458	27.34	2534	29.59	2608	31.89
9000	3170	2336	24.46	2410	26.62	2484	28.84	2557	31.12	2629	33.46
9600	3382	2374	26.03	2445	28.22	2516	30.48	2586	32.79	2655	35.17
10200	3593	2417	27.74	2485	29.97	2553	32.27	2620	34.62		
10800	3804	2465	29.60	2530	31.87	2594	34.21	2659	36.60		
11400	4016	2517	31.61	2579	33.93	2641	36.31	Maximum motor frame size = 256T (Class II)			
12000	4227	2572	33.78	2632	36.15	Maximum motor frame size = 286T (Class IIP)					
12600	4438	2631	36.11	Maximum motor frame size = 324T (Class III)							

*Inlet OD if optional inlet collar is ordered

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

SQBI-240

Wheel
Diameter - 26.44"

Outlet ID
Size - 21.3125" x 23.8175"
Area - 3.52 ft² ID

Inlet OD*
Size - 27.5625"
Area - 4.14 ft² ID

All wheels are SQBI Type
Class II = light text face above Class IIP
Class IIP = bold text face
Class III = italic face below Class IIP

Volume CFM	O.V. fpm	0" SP		½" SP		1" SP		1 ½" SP		2" SP		3" SP		4" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
Minimum motor frame size is 143T regardless of bhp															
4200	1219	467	0.26	578	0.60	674	0.99	766	1.42	855	1.92	1021	3.05	1171	4.34
5000	1451	555	0.44	652	0.84	735	1.27	815	1.74	893	2.26	1042	3.44	1182	4.78
5800	1683	644	0.68	730	1.15	804	1.63	875	2.14	943	2.70	1076	3.93	1204	5.32
6600	1915	733	1.01	811	1.54	878	2.07	941	2.63	1002	3.23	1122	4.53	1238	5.97
7400	2147	822	1.42	893	2.01	954	2.61	1012	3.22	1068	3.86	1176	5.24	1282	6.74
8200	2379	911	1.93	976	2.59	1033	3.24	1086	3.91	1137	4.60	1237	6.06	1333	7.63
9000	2611	1000	2.56	1060	3.28	1113	3.99	1163	4.72	1210	5.46	1302	7.02	1392	8.67
9800	2844	1089	3.30	1144	4.09	1194	4.87	1241	5.65	1285	6.45	1371	8.10	1454	9.84
10600	3076	1177	4.18	1230	5.03	1277	5.87	1320	6.72	1363	7.57	1443	9.33	1521	11.16
11400	3308	1266	5.19	1315	6.12	1360	7.02	1401	7.93	1441	8.84	1517	10.71	1591	12.64
12200	3540	1355	6.37	1401	7.35	1443	8.33	1483	9.29	1521	10.27	1593	12.25	1663	14.28
13000	3772	1444	7.70	1487	8.76	1527	9.79	1565	10.83	1601	11.86	1670	13.95	1737	16.09
13800	4004	1533	9.21	1574	10.33	1612	11.44	1648	12.53	1683	13.63	1749	15.84	1812	18.09
14600	4236	1622	10.91	1661	12.10	1697	13.27	1732	14.43	1765	15.58	1828	17.92	1889	20.28
15400	4468	1711	12.80	1748	14.06	1783	15.29	1816	16.52	1848	17.74	1909	20.19	1967	22.67
16200	4701	1799	14.90	1835	16.22	1868	17.52	1900	18.81	1931	20.10	1990	22.68	2046	25.27
17000	4933	1888	17.22	1922	18.61	1954	19.98	1985	21.33	2014	22.68	2071	25.38	2125	28.10
17800	5165	1977	19.77	2010	21.22	2040	22.66	2070	24.08	2099	25.49	2153	28.32	2206	31.16
18600	5397	2066	22.56	2097	24.08	2127	25.58	2155	27.06	2183	28.54	2236	31.50	2287	34.46

Volume CFM	O.V. fpm	5" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
5000	1451	1312	6.26	1433	7.86										
5800	1683	1326	6.84	1441	8.49	1551	10.26	1655	12.13						
6600	1915	1350	7.54	1459	9.23	1563	11.05	1663	12.97	1759	14.98	1851	17.09		
7400	2147	1385	8.36	1486	10.10	1583	11.96	1678	13.93	1770	15.99	1859	18.15	1945	20.39
8200	2379	1428	9.32	1522	11.12	1613	13.02	1702	15.03	1790	17.14	1875	19.35	1958	21.64
9000	2611	1479	10.42	1566	12.28	1651	14.24	1735	16.30	1817	18.45	1898	20.70	1977	23.04
9800	2844	1536	11.67	1617	13.59	1696	15.61	1774	17.73	1852	19.93	1928	22.23	2003	24.62
10600	3076	1598	13.07	1673	15.07	1747	17.16	1821	19.33	1893	21.60	1965	23.95	2036	26.38
11400	3308	1663	14.64	1733	16.72	1803	18.88	1872	21.12	1941	23.45	2009	25.86	2076	28.34
12200	3540	1731	16.37	1798	18.54	1863	20.78	1929	23.10	1993	25.49	2057	27.97	2121	30.51
13000	3772	1801	18.29	1865	20.55	1927	22.88	1989	25.27	2050	27.74	2111	30.28	2171	32.89
13800	4004	1874	20.39	1934	22.75	1993	25.16	2052	27.64	2110	30.19	2168	32.81	2225	35.49
14600	4236	1948	22.69	2006	25.14	2062	27.66	2118	30.23	2174	32.86	2229	35.55	2283	38.31
15400	4468	2023	25.19	2079	27.75	2133	30.36	2187	33.02	2240	35.74	2292	38.52	2344	41.36
16200	4701	2100	27.90	2153	30.57	2205	33.28	2257	36.05	2308	38.86	2358	41.73	2408	44.65
17000	4933	2178	30.84	2229	33.62	2279	36.44	2329	39.30	2377	42.21				
17800	5165	2256	34.02	2306	36.91	2354	39.83	2402	42.80						
18600	5397	2336	37.44	2383	40.44										

Volume CFM	O.V. fpm	12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp	RPM	bhp
7400	2147	2029	22.72	2110	25.13						
8200	2379	2038	24.02	2117	26.47	2193	29.01	2268	31.61	2340	34.29
9000	2611	2054	25.46	2130	27.97	2204	30.55	2276	33.21	2347	35.94
9800	2844	2077	27.09	2149	29.64	2221	32.27	2291	34.97	2359	37.75
10600	3076	2106	28.90	2176	31.50	2244	34.17	2311	36.92	2377	39.74
11400	3308	2142	30.91	2208	33.56	2273	36.28	2337	39.08	2401	41.94
12200	3540	2184	33.14	2246	35.83	2308	38.61	2370	41.45		
13000	3772	2231	35.58	2290	38.33	2349	41.16	2408	44.06		
13800	4004	2282	38.24	2339	41.06	2395	43.94				
14600	4236	2337	41.13	2391	44.02						
15400	4468	2396	44.26								

*Inlet OD if optional inlet collar is ordered

Power rating (bhp) does not include drive losses. Performance shown is for installation type B-Free inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances in the airstream.

Maximum motor frame size = 284T (Class II)
Maximum motor frame size = 324T (Class IIP)
Maximum motor frame size = 326T (Class III)

Maximum Shaft and Bearing Speed for Belt Drive Fans
Maximum Wheel Speed and WR² (lb-ft²) for Direct Drive Fans

Fan Size	Maximum Shaft and Bearing Speed note 1			HDAF Steel Wheel note 1						SQBI Steel Wheel note 1						Aluminum Wheel note 2				
				Class II		Class IIP		Class III		Class II		Class IIP		Class III		HDBI		SQBI		
	Class II	Class IIP	Class III	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	Wheel WR ²	Max RPM	
120	120		4040	2.8	4380	2.8	5400			3.9	4065	4.1	4880	4.1	5000	1.2	5400	1.4	5000	
130	130		3750	4.2	3900			4.2	4999	5.3	3750	5.7	4460	5.7	4700	1.7	4999	2.0	4700	
150	150		3460	5.9	3513			5.9	4712	8.1	3050	8.3	4117	8.3	4117	2.5	4712	3.9	4117	
160	160	3042	3150	9.0	3195			9.9	4285	11.7	3042	12.9	3724	12.4	3724	4.2	4285	5.9	3724	
180	180	2593	2850	13.9	2903			15.0	3885	17.4	2593	20.1	3600	20.1	3600	6.7	3885	8.8	3600	
200	200	2380	2740	3000	19.0	2661			20.8	3574	24.6	2380	26.5	3550	26.5	3550	9.8	3574	13.0	3550
220	220	2115	2380	2664	26.1	2304			29.1	3550	36.3	2115	39.6	3164	39.6	3160	14.7	3550	20.1	3160
240	240	1912	2110	2409	54.6	2132			58.2	2837			66.6	2740	78.5	2740	26.5	2837	33.2	2740
270	270	1738	1960	2190					89.9	2476			114.0	2493	114.0	2493	45.9	2476	56.9	2493
300	300	1568	1790	1976					130.0	2300			165.0	2243	165.0	2243	64.3	2300	76.7	2243

- 1 For steel wheels up to 175° F (80°C).
- 2 For aluminum wheels up to 200°F (93°C). All aluminum wheels are Class III construction.

Approximate Shipping Weight Less Motor and Options lb

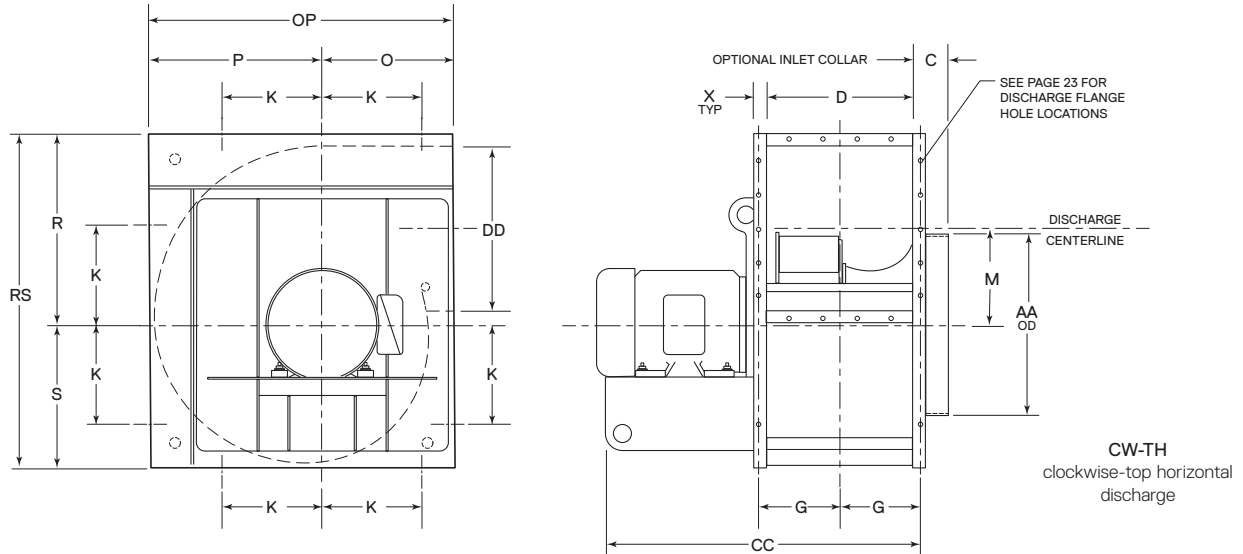
Fan Size	Arrangement 4		Arrangement 9		
	All Classes		Class II	Class IIP	Class III
120	128			231	
130	140			253	
150	162			369	
160	190		385	385	
180	280		513	530	
200	330		577	621	684
220	380		667	725	774
240	452		806	838	893
270	620		1074	1074	1134
300	730		1239	1252	1418

⚠ CAUTION All fans and blowers shown have rotating parts and pinch points. Severe personal injury can result if operated without guards. Stay away from rotating equipment unless it is disconnected from its power source.

Construction Gauges

Fan Size	Arrangement 4				Arrangement 9					Arrangement 4 - Arrangement 9			
	Class	Housing	Inlet Bell	Motor Base	Class	Housing	Inlet Bell	Motor Base	Bearing Base	Steel Wheel			
										Shroud	Blade	Back Plate	Reinforcement Plate
120	II	10	14	7 - 1/4"	IIP	10	14	1/4"	1/4"	12	10	7	10
130	II	10	14	7 - 1/4"	IIP	10	14	1/4"	1/4"	12	10	7	10
150	II - III	10	14	7 - 1/4"	IIP	10	14	1/4"	1/4"	12	10	7	10
160	II - III	10	14	7 - 1/4"	II - IIP	10	14	1/4"	1/4"	12	10	7	10
180	II - III	10	14	7 - 1/4"	II - IIP	10	14	1/4"	1/4"	12	10	7	10
200	II - IV	10	14	7 - 1/4"	II - IIP - III	10	14	1/4"	1/4"	12	7	7	10
220	II	10	14	7 - 1/4"	II - IIP - III	10	14	1/4"	1/4"	12	7	7	10
240	II	10	14	7 - 1/4"	II - IIP - III	10	14	1/4"	1/4"	11	7	1/4"	10
270	II	7	14	7 - 1/4"	II - IIP - III	7	14	1/4"	1/4"	11	7	1/4"	1/4"
300	II - III	7	14	7 - 1/4"	II - IIP	7	14	1/4"	1/4"	11	7	1/4"	1/4"
300	II - III	7	14	7 - 1/4"	III	1/4"	14	1/4"	1/4"	11	7	1/4"	1/4"

ARRANGEMENT 4 — DIRECT DRIVE

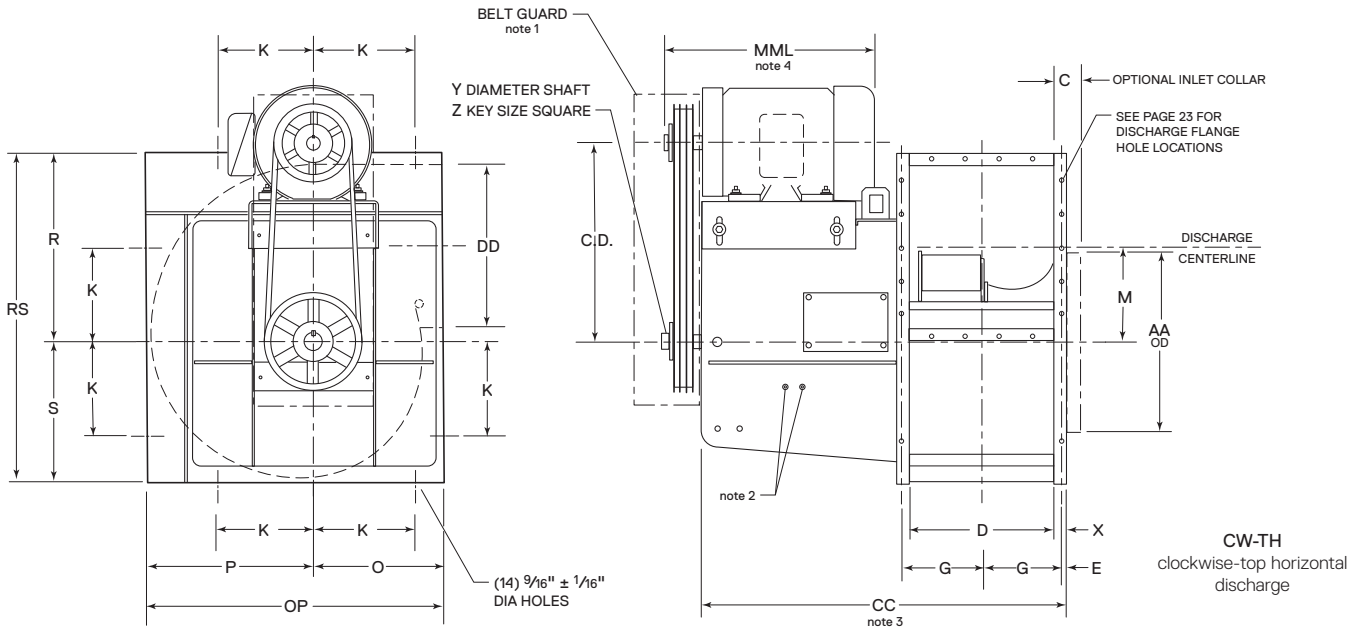


Model	Motor Frame	D	E	G	K	M	O	P	R	S	X	AA	DD
SQBI-120	143T-215T	10 11/16"	7/16"	6 1/32"	7"	6 15/16"	10"	12 1/2"	14 1/16"	10 1/2"	1 1/8"	13 7/16"	12"
SQBI-130	143T-215T	11 3/4"	7/16"	6 9/16"	7 11/16"	7 5/8"	11"	13 3/4"	15 3/8"	11 1/2"	1 1/8"	15 7/16"	13 1/4"
SQBI-150	143T-256T	13 1/16"	5/8"	7 13/16"	8 9/16"	8 1/2"	12"	15 1/4"	17 5/16"	12 3/4"	1 1/2"	16 9/16"	14 5/8"
SQBI-160	143T-256T	14 3/8"	5/8"	8 1/16"	9 3/8"	9 7/16"	13"	16 3/4"	18 15/16"	14"	1 1/2"	18 9/16"	16"
SQBI-180	143T-324T	15 7/8"	5/8"	8 13/16"	10 3/8"	10 13/16"	14 1/4"	18 1/2"	20 13/16"	15 7/16"	1 1/2"	20 9/16"	17 13/16"
SQBI-200	182T-326T	17 3/8"	5/8"	9 9/16"	11 3/4"	11 13/16"	15 1/2"	20 3/8"	22 5/8"	17"	1 1/2"	22 9/16"	19 7/16"
SQBI-220	182T-326T	19 3/8"	5/8"	10 3/16"	13 1/4"	12 11/16"	17"	22 9/16"	25"	18 7/8"	1 1/2"	24 9/16"	21 5/8"
SQBI-240	213T-256T	21 5/16"	5/8"	11 17/32"	14 3/4"	13 31/32"	18 1/2"	24 13/16"	27 3/8"	20 3/4"	1 1/2"	27 9/16"	23 13/16"
SQBI-270	213T-286T	23 1/2"	7/8"	12 7/8"	16 1/2"	15 3/8"	20 1/4"	27 1/4"	30 1/2"	22 7/8"	2"	30 9/16"	26 1/4"
SQBI-300	254T-326T	26 1/8"	7/8"	14 3/16"	18 1/2"	17 3/32"	22 1/4"	30 1/4"	33 11/16"	25 5/16"	2"	33 9/16"	29 3/16"

Model	OP	RS	CC						
			143T-145T	182T-184T	213T-215T	254T-256T	284T-286T(S)	324T-326T(S)	
SQBI-120	22 1/2"	24 9/16"	24 7/16"	26 13/16"	26 15/16"				
SQBI-130	24 3/4"	26 7/8"	25 1/2"	27 7/8"	29"				
SQBI-150	27 1/4"	30 1/16"	27 3/16"	29 9/16"	30 11/16"	33 11/16"			
SQBI-160	29 3/4"	32 15/16"	28 1/2"	31"	32"	35"			
SQBI-180	32 3/4"	36 1/4"	30"	32 1/2"	32 1/2"	36 1/2"	40 1/2"	43 1/2"	
SQBI-200	35 7/8"	39 5/8"	31 1/2"	34"	35"	38"	42"	45"	
SQBI-220	39 9/16"	43 7/8"		36"	37"	40"	44"	47"	
SQBI-240	43 5/16"	48 1/8"				38 15/16"	41 15/16"		
SQBI-270	47 1/2"	53 3/8"				41 11/16"	44 11/16"	48 11/16"	
SQBI-300	52 1/2"	59"					47 5/16"	51 5/16"	54 5/16"

Note—Dimension are for full width housings. For partial width housings consult your Cincinnati Fan sales representative.

ARRANGEMENT 9 — BELT DRIVE



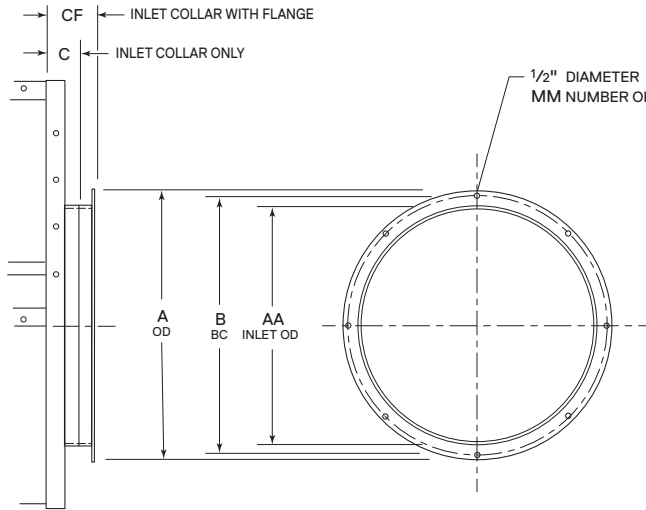
- 1 Belt guard is standard.
- 2 Extended lube-lines are standard.
- 3 Add 1/8" for AMCA "C" Construction.

- 4 MML is maximum motor length on customer supplied motor. Motor manufacturer's C dimension cannot exceed MML without a special base.
- Note**—Dimension are for full width housings. For partial width housings consult your Cincinnati Fan sales representative.

Model	D	E	F	G	K	M	O	P	R	S	Y			
											Class II	Class IIP	Class III	
SQBI-120	10 11/16"	7/16"	4"	6 1/32"	7"	6 15/16"	10"	12 1/2"	14 1/16"	10 1/2"		1 3/16"		
SQBI-130	11 3/4"	7/16"	4"	6 9/16"	7 11/16"	7 5/8"	11"	13 3/4"	15 3/8"	11 1/2"		1 3/16"		
SQBI-150	13 1/16"	5/8"	4"	7 13/16"	8 9/16"	8 1/2"	12"	15 1/4"	17 5/16"	12 3/4"		1 7/16"		
SQBI-160	14 3/8"	5/8"	4"	8 1/16"	9 3/8"	9 7/16"	13"	16 3/4"	18 15/16"	14"	1 7/16"	1 7/16"		
SQBI-180	15 7/8"	5/8"	4 1/2"	8 13/16"	10 3/8"	10 13/16"	14 1/4"	18 1/2"	20 13/16"	15 7/16"	1 7/16"	1 11/16"		
SQBI-200	17 3/8"	5/8"	4 1/2"	9 9/16"	11 3/4"	11 13/16"	15 1/2"	20 3/8"	22 5/8"	17"	1 11/16"	1 15/16"	2 7/16"	
SQBI-220	19 3/8"	5/8"	4 1/2"	10 3/16"	13 1/4"	12 11/16"	17"	22 9/16"	25"	18 7/8"	1 11/16"	1 15/16"	2 7/16"	
SQBI-240	21 5/16"	5/8"	4 1/2"	11 17/32"	14 3/4"	13 31/32"	18 1/2"	24 13/16"	27 3/8"	20 3/4"	1 11/16"	1 15/16"	2 7/16"	
SQBI-270	23 1/2"	7/8"	4 1/2"	12 7/8"	16 1/2"	15 3/8"	20 1/4"	27 1/4"	30 1/2"	22 7/8"	2 3/16"	2 3/16"	2 7/16"	
SQBI-300	26 1/8"	7/8"	4 1/2"	14 3/16"	18 1/2"	17 3/32"	22 1/4"	30 1/4"	33 11/16"	25 5/16"	2 3/16"	2 7/16"	2 11/16"	

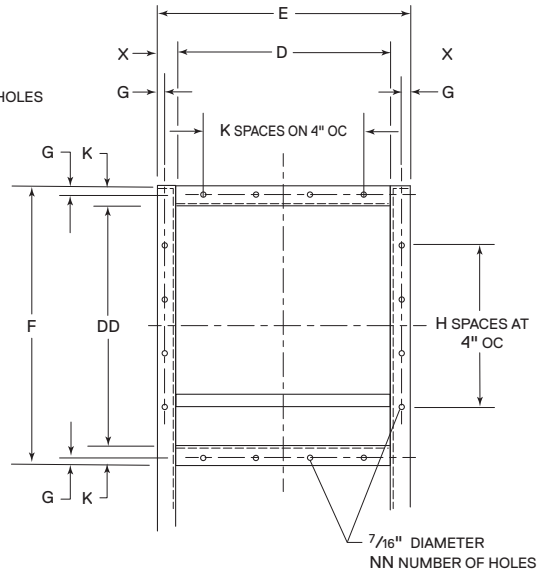
Model	X	Z			AA	CC note 3			DD	OP	RS	MML note 4			
		Class II	Class IIP	Class III		Class II	Class IIP	Class III				Class II	Class IIP	Class III	
SQBI-120	1 1/8"		1/4"		13 7/16"		29 15/16"		12"	22 1/2"	24 9/16"		19 1/2"		
SQBI-130	1 1/8"		1/4"		15 7/16"		31"		13 1/4"	24 3/4"	26 7/8"		19 1/2"		
SQBI-150	1 1/2"		3/8"		16 9/16"		37 1/2"		14 5/8"	27 1/4"	30 1/16"		24"		
SQBI-160	1 1/2"	3/8"	3/8"		18 9/16"	38 13/16"	38 13/16"		16"	29 3/4"	32 15/16"	24"	24"		
SQBI-180	1 1/2"	3/8"	3/8"		20 9/16"	40 1/2"	40 1/2"		17 13/16"	32 3/4"	36 1/4"	24 1/2"	24 1/2"		
SQBI-200	1 1/2"	3/8"	1/2"	5/8"	22 9/16"	42"	44"	46"	19 7/16"	35 7/8"	39 5/8"	24 5/8"	27 3/4"	30 5/16"	
SQBI-220	1 1/2"	3/8"	1/2"	5/8"	24 9/16"	44"	46"	48"	21 5/8"	39 9/16"	43 7/8"	24 5/8"	27 3/4"	30 5/16"	
SQBI-240	1 1/2"	3/8"	1/2"	5/8"	27 1/2"	47 15/16"	49 15/16"	49 15/16"	23 13/16"	43 5/16"	48 1/8"	27 3/4"	30 5/16"	30 5/16"	
SQBI-270	2"	1/2"	1/2"	5/8"	30 1/2"	53 11/16"	53 11/16"	56 7/16"	26 1/4"	47 1/2"	53 3/8"	30 5/16"	30 5/16"	32 7/8"	
SQBI-300	2"	1/2"	1/2"	5/8"	33 1/2"	56 5/16"	56 5/16"	59 1/16"	29 3/16"	52 1/2"	59"	30 5/16"	30 5/16"	32 7/8"	

INLET AND OUTLET FLANGES



Optional Inlet Collar and Flange

Note—Flanges will be drilled per these dimensions unless otherwise specified.



Standard Outlet Flange

Dimensions shown are for 100% width housings. Consult Cincinnati Fan for reduced width outlet flange dimensions. Outlet flange standard on all models.

Model	Inlet Collar Only		Inlet Collar with Inlet Flange					Discharge Flange								
	C	AA	A	B	AA	CF	MM	D	E	F	G	H	K	X	DD	NN
SQBI-120	1 5/8"	13 7/16"	16 3/16"	15"	13 7/16"	3 3/16"	8	10 11/16"	12 15/16"	14 1/4"	7/16"	2	2	1 1/8"	12"	12
SQBI-130	1 5/8"	15 7/16"	18 3/16"	16 1/2"	15 7/16"	3 3/16"	8	11 3/4"	14"	15 1/2"	7/16"	2	2	1 1/8"	13 1/4"	12
SQBI-150	1 5/8"	16 9/16"	19 3/16"	18 1/8"	16 9/16"	3 1/4"	8	13 1/16"	16 1/16"	17 5/8"	5/8"	3	2	1 1/2"	14 5/8"	14
SQBI-160	1 5/8"	18 9/16"	21 3/16"	20 1/8"	18 9/16"	3 1/4"	8	14 3/8"	17 3/8"	19"	5/8"	3	3	1 1/2"	16"	16
SQBI-180	1 5/8"	20 9/16"	23 3/16"	20 1/4"	20 9/16"	3 1/4"	8	15 7/8"	18 7/8"	20 13/16"	5/8"	3	3	1 1/2"	17 13/16"	16
SQBI-200	1 5/8"	22 9/16"	25 3/16"	24 1/16"	22 9/16"	3 1/4"	16	17 3/8"	20 3/8"	22 7/16"	5/8"	4	3	1 1/2"	19 7/16"	18
SQBI-220	1 5/8"	24 9/16"	27 3/16"	26 1/8"	24 9/16"	3 1/4"	16	19 3/8"	22 3/8"	24 5/8"	5/8"	4	4	1 1/2"	21 5/8"	20
SQBI-240	2 1/8"	27 9/16"	31 3/16"	29"	27 9/16"	4 1/4"	16	21 5/16"	24 5/16"	26 13/16"	5/8"	5	4	1 1/2"	23 13/16"	22
SQBI-270	2 1/8"	30 9/16"	34 3/16"	32 3/16"	30 9/16"	4 1/4"	16	23 1/2"	27 1/2"	30 1/4"	7/8"	6	5	2"	26 1/4"	26
SQBI-300	2 1/8"	33 9/16"	37 3/16"	35 3/8"	33 9/16"	4 1/4"	16	26 1/8"	30 1/8"	33 3/16"	7/8"	6	6	2"	29 3/16"	28

Eight Rotation and Discharge Positions Available.

Discharges shown are determined by viewing fan from motor or drive side



CW-TH
 Clockwise Top
 Horizontal
 Discharge



CW-DB*
 Clockwise
 Down Blast
 Discharge



CW-BH
 Clockwise
 Bottom
 Horizontal
 Discharge



CW-UB
 Clockwise
 Up Blast
 Discharge



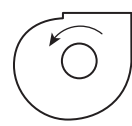
CCW-TH
 Counter
 Clockwise Top
 Horizontal
 Discharge



CW-DB*
 Counter
 Clockwise
 Down Blast
 Discharge



CW-BH
 Counter
 Clockwise
 Bottom
 Horizontal
 Discharge



CW-UB
 Counter Clockwise
 Up Blast
 Discharge

SPX ENGINEERED AIR MOVEMENT

7697 SNIDER ROAD
MASON, OH 45040 USA

513 573 1000 | [spxairmovement.com](https://www.spxairmovement.com)

CF-SQBI-TECH-24 | ISSUED 3/2024

©2024 SPX ENGINEERED AIR MOVEMENT | ALL RIGHTS RESERVED

In the interest of technological progress, all products are subject to design and/or material change without notice.