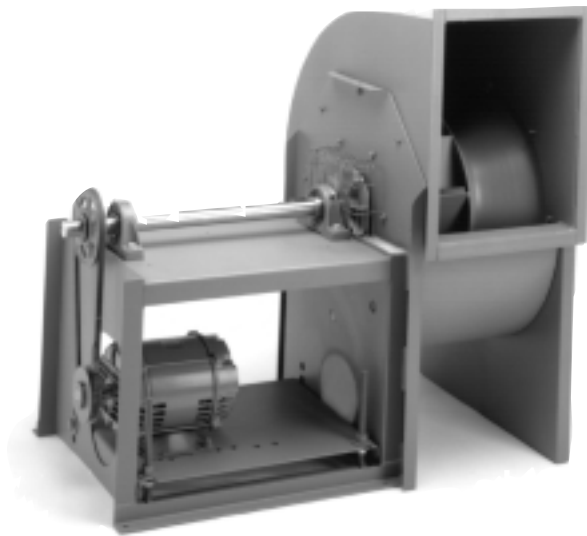




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## ***UTILITY BLOWERS***

***Type BIUB & FCUB***



# Standard Construction Features – Class I and II

Standard design features common to all Class I and Class II fans:

## Shaft

- AISI 1045, turned, ground and polished for accuracy.
- Designed to provide first critical speed of at least 1.43 times the maximum class speed.

## Bearings

Heavy duty grease lubricated pillow block bearings selected for minimum average life (AFBMA L-50) of at least 200,000 hours at maximum class speed.

## Drive

Adjustable or fixed pitch, 1.2 or 1.5 service factor V-belt drives with cast iron sheaves, and V-belts designed to be oil and heat resistant, and to dissipate static electricity.

## Motor

Available in various sizes, voltages, enclosures, and efficiencies to meet the needs of any application.

## Motor/Bearing Pedestal (Class I Shown)

Large open motor compartment allows complete access to motor and motor base for quick and easy servicing and belt tension adjustment.

## Shutter

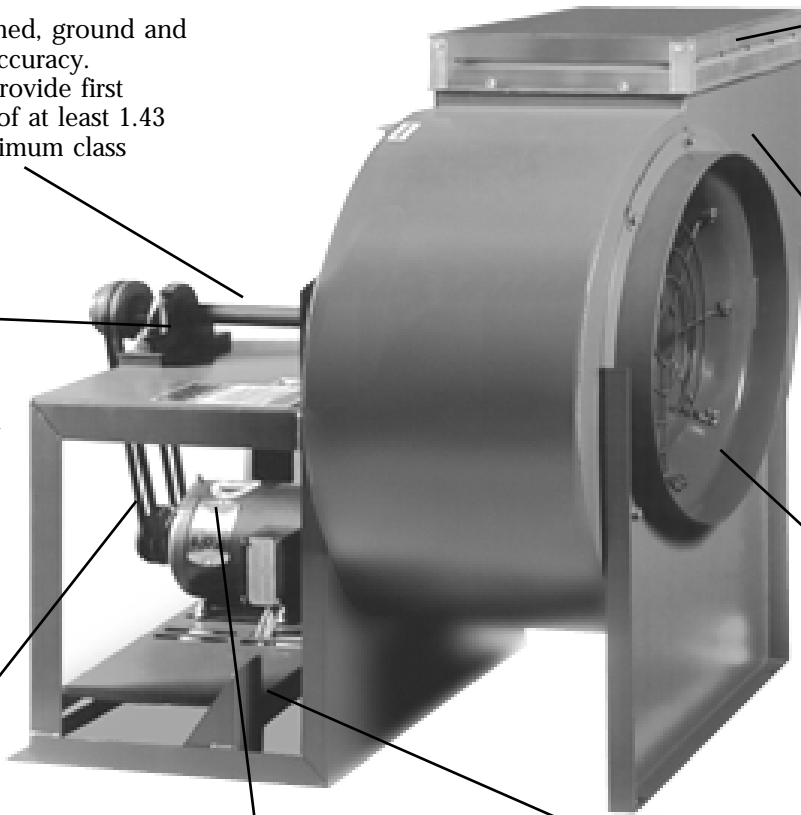
Optional discharge gravity shutter.

## Housing

- Rugged, all-welded construction.
- Rotatable to eight standard discharge positions.

## Inlet Cone

Deep spun cone, aerodynamically designed for smooth air entry into the wheel, shown here with optional inlet screen.



## Construction Features

CLASS I	CLASS II
Rotatable to Size 36	Rotatable to Size 36
Static Pressures to 5"	Static Pressures to 8"
Capacities to 26,000 CFM	Capacities to 33,000 CFM
Wheel Dia. 12¼" to 36½"	Wheel Dia. 12¼" to 36½"
Temperatures to 500°F	Temperatures to 600°F
Maximum Motor Frame Size 256T (20 HP)	Maximum Motor Frame Size 326T (50 HP)
Full AMCA Class Rated Performance	Full AMCA Class Rated Performance

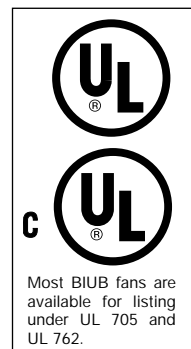
## Certification



Aerovent certifies that the type BIUB fans shown on pages 6 through 9 are licensed to bear the AMCA Seal for Sound and Air. 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. Refer to Bulletin 761 for sound power levels.



Aerovent certifies that the type FCUB fans shown on pages 10 through 13 are licensed to bear the AMCA Seal for Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



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# Class II Construction Features

In addition to the standard design features, the Class II vent sets are also equipped with the following features:

## Shaft Cooler, Seal and Guard

Included with the optional high temperature package. This assembly provides greater thermal protection for the shaft and bearings.

## Outlet Flange

Standard on sizes 22 and larger.

## Class II Rated Wheel

Constructed of all welded steel for heavy duty applications.

## Heat Gap

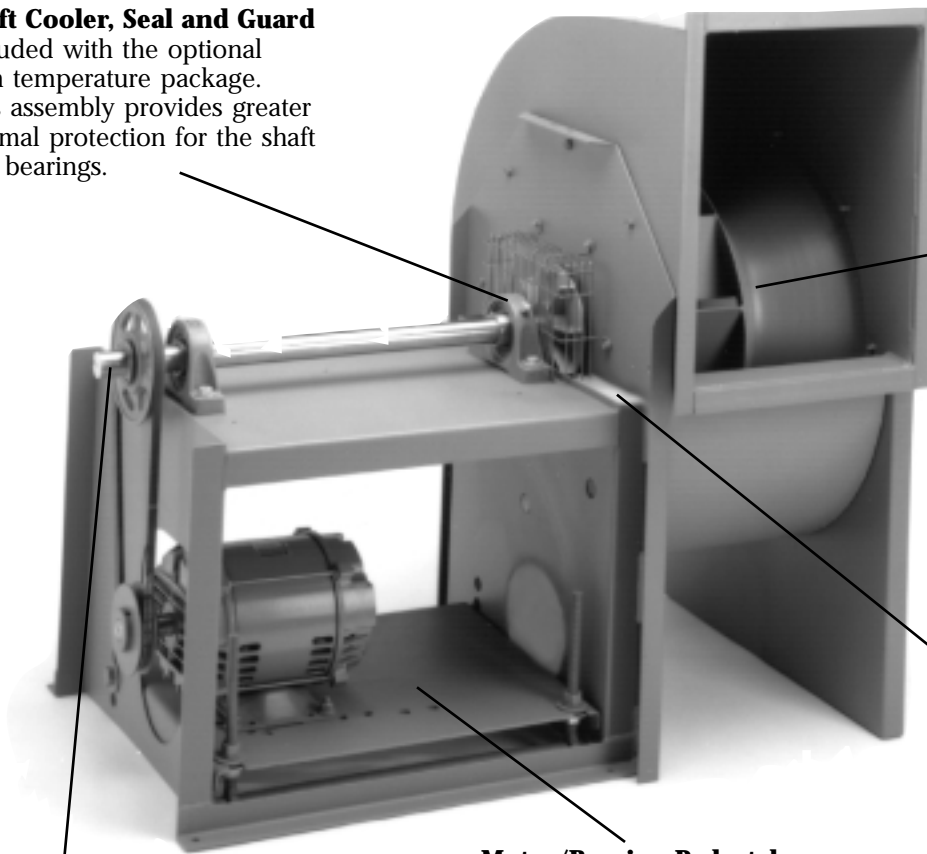
Separation between the fan housing and motor/bearing pedestal. For operating temperatures above 300°F, this gap is insulated to provide additional protection to the motor, bearings and V-belt.

## Motor/Bearing Pedestal

Extra-large motor/bearing pedestal compartment accommodates all motor sizes required for full Class II performance.

## Shaft and Bearings

Heavy duty Class II shaft and bearings.



# Wheel Selection



**ALUMINUM BI**

Wheels for BIUB Class I sizes 12 through 27 are constructed of riveted aluminum. For operating temperatures over 250°F, a welded steel wheel is provided.



**STEEL BI**

Wheels for BIUB Class I sizes 30 through 36, as well as all BIUB Class II sizes, are constructed of welded steel.



**STEEL FC**

All FCUB fans are equipped with riveted steel wheels.

# Accessories

## Weather Cover

An easily removable weather cover is available for either Class I or Class II fans. The weather cover provides complete protection for the motor, fan bearings, and V-belt drive. If an OSHA-style belt guard is specified on vent sets, a weather cover will be supplied.



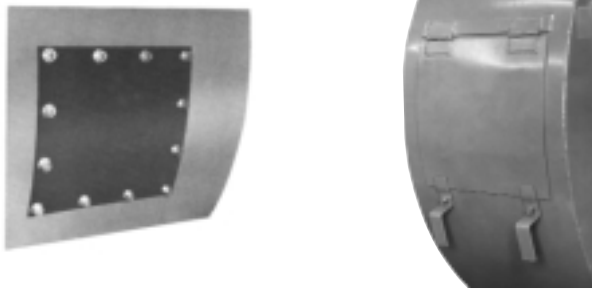
## Outlet Shutters

Interconnected blade-style shutters, of either gravity or motor operated type. Fabricated with die-formed and felted edges, they are noiseless in operation and completely weatherproof. For volume control, heavy duty center-pivoted dampers can be installed at the discharge of these ventilating sets.



## Access Doors

Two types of access doors are available: bolted or quick-opening. Access doors are specified where examination and cleaning of the fan interior is required.



## Variable Inlet Vanes

Variable inlet vanes provide economical, stable and efficient air volume control for manual or motorized operation. Low maintenance, easy assembly and disassembly, and long life are prime features of this vane design. Blades are supported by needle roller bearings riding on fatigue resistant steel shafts, hardened to minimize wear. Bearings are lubricated for life with high grade moisture-resistant grease and protected with quality seals. The vane bearing housings are welded in position and stiffened with a welded support ring. The welded structure eliminates flutter and vibration while still utilizing the efficiency of a cantilevered design.



Two types of inlet vanes are offered, depending on fan size. Inlet vanes for sizes 12, 13, and 15 are external type, bolted to the fan inlet flange. Inlet vanes for sizes 16 and larger are supplied as nested type, with the inlet vane blades nested within the inlet cone and all linkages internal to the fan. (Nested style inlet vanes shown.)

## Belt Guard

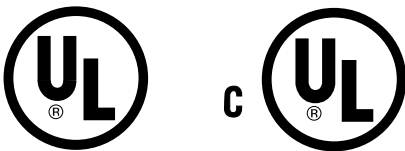
Standard belt guards are of the open back style, and are readily removable for belt or pulley adjustments. For OSHA-style belt guards, see notes on weather cover.

## Additional Accessories

- Inlet flange
- Outlet flange
- Drain connection
- Disconnect switch
- Vibration isolation pads
- Rails and hangers
- Inlet screen
- Outlet screen

# UL 705 and UL 762

Model BIUB fans are available with optional UL 705 and UL 762 packages.



These optional packages include:

### UL 705 Package

- Weather cover with oversized cooling slots
- UL 705 label

### UL 762 Package

- Weather cover with oversized cooling slots
- Bolted access door
- Drain connection
- Backplate fins
- UL 762 label

UL 762 is available in upblast and top angular up discharges only. For UL 762, grease pans, disconnect switches, stacks or fan platforms are not included. Fans must be installed per local codes and NFPA 96. Most ODP and TEFC motors are available. Aerovent reserves the right to specify motor suppliers.

# Optional Construction

## High Temperature Construction

Standard fan design options are available to handle airstream temperatures to 600°F. Consult your Aerovent representative for applications over 600°F. High tem-

perature operating limits and necessary modifications are shown in Table 1.

Table 1. High Temperature Construction Requirements

TEMPERATURE (°F)	WHEEL MATERIAL	BEARING LUBRICATION	OTHER REQUIREMENTS
-20 TO 250°F	Riveted Aluminum on 12-27 BIUB Class I. All Others Steel.	Grease	Standard Fan
251 TO 300°F	Steel	Grease	Standard Fan
301 TO 500°F	Steel	High Temperature Grease	Shaft Cooler, Shaft Seal, Expansion & Non-Expansion Bearings; Class II: Insulated Heat Gap
501 TO 600°F CLASS II ONLY	Steel	High Temperature Grease	Shaft Cooler, Shaft Seal, Expansion & Non-Expansion Bearings; High Temperature Aluminum Paint, Insulated Heat Gap

When selecting the performances at elevated temperatures and altitudes, refer to the method used in Bulletin 300.

## Spark Resistant Construction

AMCA TYPE	FAN CONSTRUCTION
A	All Airstream Parts are Aluminum (Wheel, Housing, and Shaft Seal). Limited to 250°F.
B	Aluminum Wheel and Rubbing Plate. Limited to 250°F.
C	To 250°F — 12 To 27 BIUB Class I: Aluminum Wheel and Rubbing Plate
	251 To 500°F — 12 To 27 BIUB Class I & II: Steel Wheel, Aluminum Inlet Cone and Rubbing Plate.
	All Other To 500°F — Aluminum Inlet Cone and Rubbing Plate.

### NOTES:

1. Bearings shall be placed outside the airstream.
2. The user shall electrically ground all fan parts.
3. 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 the system."

# Engineering Data

## Derating Factors For High Temperature

Fan operation at high temperature adversely affects the strength of fan wheels. As a result, the maximum safe speed (RPM) of the fan from Table 3 must be derated by the temperature factor from Table 2.

**Example:** Maximum safe speed at 400°F for a size 24 BIUB Class II steel wheel = 0.95 x 2033 = 1931 RPM (2033 RPM is maximum RPM at 70°F).

Table 2. Derating Factors for High Temperature

TEMPERATURE (°F)	ALUMINUM	STANDARD STEEL	STAINLESS STEEL
70	1.00	1.000	1.00
200	1.00	0.980	0.95
250	1.00	0.970	0.93
300	—	0.960	0.91
400	—	0.950	0.88
500	—	0.900	0.84
600	—	0.860	0.81

Table 3. Maximum RPM at 70°F

SIZE	BIUB		FCUB	
	CLASS I	CLASS II	CLASS I	CLASS II
12	3167	4119	1559	1871
13	2874	3738	1415	1698
15	2587	3364	1273	1528
16	2352	3058	1157	1389
18	2118	2729	1046	1256
20	1932	2490	955	1146
22	1737	2238	858	1030
24	1577	2033	780	935
27	1397	1803	707	849
30	1257	1623	637	764
33	1143	1475	579	694
36	995	1283	523	628

Table 4. Bare Fan Weights (lb)

SIZE	CLASS I	CLASS II
12	121	133
13	139	153
15	162	178
16	198	218
18	220	242
20	287	316
22	348	383
24	453	498
27	507	559
30	662	728
33	758	834
36	940	1034

# Performance Data – BIUB

## 12 BIUB

Outlet Area - 0.86 ft<sup>2</sup>    Wheel Dia. - 12.25 Inches    Tip Speed - 3.21 x RPM    Max. BHP = 0.076 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	869	0.05	1044	0.08	1335	0.17																
860	1000	994	0.07	1152	0.12	1413	<u>0.21</u>	1642	0.31														
1032	1200	1123	0.11	1271	0.16	1512	0.26	<u>1720</u>	<u>0.37</u>	1911	0.49												
1204	1400	1256	0.15	1397	0.21	1622	0.32	1816	0.45	1992	<u>0.58</u>	2317	0.87										
1376	1600	1396	0.20	1525	0.27	1738	0.40	1922	0.54	2088	0.68	<u>2390</u>	<u>0.98</u>	2671	1.33								
1548	1800	1539	0.27	1655	0.34	1861	0.49	2035	0.64	2193	0.79	2480	1.12	<u>2741</u>	<u>1.48</u>	2989	1.87						
1720	2000	1685	0.36	1790	0.43	1988	0.60	2154	0.76	2305	0.93	2578	1.27	<u>2827</u>	<u>1.65</u>	<u>3059</u>	<u>2.05</u>	3283	2.48	3500	2.94		
1892	2200	1834	0.46	1929	0.54	2116	0.72	2277	0.90	2421	1.08	2683	1.45	2922	1.84	<u>3144</u>	<u>2.26</u>	<u>3355</u>	<u>2.71</u>	<u>3559</u>	<u>3.18</u>	3758	3.67
2064	2400	1984	0.58	2072	0.66	2245	0.86	2403	1.06	2542	1.25	2794	1.65	3023	2.06	<u>3238</u>	<u>2.50</u>	<u>3440</u>	<u>2.96</u>	<u>3633</u>	<u>3.44</u>	<u>3821</u>	<u>3.95</u>
2236	2600	2135	0.72	2216	0.81	2377	1.01	2531	1.23	2667	1.44	2909	1.87	3131	2.31	<u>3337</u>	<u>2.77</u>	<u>3533</u>	<u>3.25</u>	<u>3719</u>	<u>3.75</u>	<u>3898</u>	<u>4.27</u>
2408	2800	2287	0.88	2363	0.98	2512	1.19	2659	1.42	2793	1.66	3028	2.11	<u>3243</u>	<u>2.58</u>	<u>3442</u>	<u>3.06</u>	<u>3631</u>	<u>3.56</u>	<u>3812</u>	<u>4.08</u>	<u>3985</u>	<u>4.61</u>
2580	3000	2439	1.07	2511	1.17	2650	1.40	2789	1.64	2921	1.89	3151	2.38	<u>3358</u>	<u>2.88</u>	<u>3552</u>	<u>3.39</u>	<u>3735</u>	<u>3.90</u>	<u>3910</u>	<u>4.44</u>	<u>4079</u>	<u>5.00</u>
2752	3200	2593	1.28	2660	1.39	2791	1.63	2922	1.88	3049	2.15	<u>3276</u>	<u>2.68</u>	<u>3477</u>	<u>3.20</u>	<u>3665</u>	<u>3.74</u>	<u>3843</u>	<u>4.28</u>	<u>4013</u>	<u>4.83</u>		
2924	3400	2746	1.52	2810	1.64	2934	1.89	3057	2.15	<u>3179</u>	<u>2.43</u>	<u>3402</u>	<u>2.99</u>	<u>3599</u>	<u>3.55</u>	<u>3781</u>	<u>4.11</u>	<u>3955</u>	<u>4.69</u>				
3096	3600	2901	1.79	2961	1.92	3078	2.17	<u>3194</u>	<u>2.45</u>	<u>3310</u>	<u>2.74</u>	<u>3530</u>	<u>3.34</u>	<u>3723</u>	<u>3.93</u>	<u>3901</u>	<u>4.52</u>	<u>4070</u>	<u>5.12</u>				
3268	3800	3055	2.09	3112	2.22	<u>3224</u>	<u>2.49</u>	<u>3334</u>	<u>2.78</u>	<u>3444</u>	<u>3.08</u>	<u>3658</u>	<u>3.71</u>	<u>3849</u>	<u>4.34</u>	<u>4023</u>	<u>4.96</u>						

MAXIMUM RPM: Class I — 3167    Class II — 4119

Selections above 4000 RPM not recommended. Consult factory.

## 13 BIUB

Outlet Area - 1.05 ft<sup>2</sup>    Wheel Dia. - 13.50 Inches    Tip Speed - 3.53 x RPM    Max. BHP = 0.124 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	791	0.06	949	0.10	1213	0.20																
1050	1000	905	0.09	1048	0.14	<u>1285</u>	<u>0.25</u>	<u>1491</u>	<u>0.38</u>														
1260	1200	1022	0.13	1157	0.19	1375	0.32	<u>1563</u>	<u>0.45</u>	1736	0.60												
1470	1400	1144	0.18	1272	0.25	1475	0.40	1651	0.54	1811	0.70	2105	1.06										
1680	1600	1272	0.25	1388	0.33	1582	0.49	1748	0.65	1899	0.83	<u>2172</u>	<u>1.20</u>	2426	1.62								
1890	1800	1403	0.33	1508	0.42	1695	0.60	1851	0.78	1995	0.97	2254	1.37	<u>2490</u>	<u>1.80</u>	2715	2.28						
2100	2000	1537	0.44	1631	0.53	1810	0.73	1960	0.93	2097	1.14	2344	1.56	<u>2570</u>	<u>2.02</u>	<u>2780</u>	<u>2.50</u>	<u>2982</u>	<u>3.03</u>	3178	3.58		
2310	2200	1672	0.56	1758	0.66	1927	0.88	2073	1.10	2203	1.32	2441	1.78	2657	2.26	<u>2858</u>	<u>2.77</u>	<u>3048</u>	<u>3.30</u>	<u>3233</u>	<u>3.87</u>	3413	4.48
2520	2400	1809	0.71	1888	0.82	2045	1.05	2188	1.29	2314	1.53	2542	2.02	2750	2.53	<u>2944</u>	<u>3.06</u>	<u>3126</u>	<u>3.62</u>	<u>3301</u>	<u>4.20</u>	<u>3472</u>	<u>4.82</u>
2730	2600	1946	0.88	2020	1.00	2165	1.24	2304	1.51	2428	1.77	2647	2.29	2848	2.83	<u>3035</u>	<u>3.39</u>	<u>3212</u>	<u>3.97</u>	<u>3380</u>	<u>4.57</u>	<u>3542</u>	<u>5.21</u>
2940	2800	2085	1.09	2154	1.21	2289	1.47	2422	1.75	2543	2.03	2756	2.59	2950	3.16	3131	3.75	<u>3302</u>	<u>4.35</u>	<u>3466</u>	<u>4.98</u>	<u>3622</u>	<u>5.64</u>
3150	3000	2224	1.32	2289	1.45	2415	1.72	2541	2.02	2660	2.32	2868	2.92	<u>3056</u>	<u>3.53</u>	<u>3231</u>	<u>4.14</u>	<u>3397</u>	<u>4.78</u>	<u>3555</u>	<u>5.42</u>	<u>3708</u>	<u>6.10</u>
3360	3200	2364	1.58	2425	1.72	2544	2.00	2662	2.31	2777	2.64	<u>2982</u>	<u>3.28</u>	<u>3164</u>	<u>3.92</u>	<u>3335</u>	<u>4.58</u>	<u>3496</u>	<u>5.24</u>	<u>3649</u>	<u>5.91</u>		
3570	3400	2505	1.88	2562	2.02	2674	2.32	2785	2.64	<u>2895</u>	<u>2.98</u>	<u>3098</u>	<u>3.68</u>	<u>3276</u>	<u>4.35</u>	<u>3441</u>	<u>5.04</u>	<u>3598</u>	<u>5.74</u>				
3780	3600	2646	2.21	2700	2.36	2806	2.68	<u>2910</u>	<u>3.01</u>	<u>3015</u>	<u>3.36</u>	<u>3214</u>	<u>4.10</u>	<u>3389</u>	<u>4.82</u>	<u>3550</u>	<u>5.54</u>	<u>3703</u>	<u>6.27</u>				
3990	3800	2787	2.58	2838	2.74	<u>2939</u>	<u>3.07</u>	<u>3038</u>	<u>3.41</u>	<u>3138</u>	<u>3.78</u>	<u>3331</u>	<u>4.56</u>	<u>3504</u>	<u>5.32</u>	<u>3661</u>	<u>6.08</u>						

MAXIMUM RPM: Class I — 2874    Class II — 3738

## 15 BIUB

Outlet Area - 1.29 ft<sup>2</sup>    Wheel Dia. - 15.00 Inches    Tip Speed - 3.93 x RPM    Max. BHP = 0.211 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	800	710	0.08	853	0.13	1091	0.20																
1290	1000	812	0.11	941	0.17	1154	0.31	1341	0.47														
1548	1200	917	0.16	1038	0.23	1235	0.39	<u>1405</u>	<u>0.56</u>	1561	0.74												
1806	1400	1026	0.22	1141	0.31	1325	0.49	1483	0.67	1627	0.86	1893	1.31										
2064	1600	1140	0.31	1245	0.40	1420	0.60	1570	0.80	1706	1.01	<u>1952</u>	<u>1.48</u>	2181	1.99								
2322	1800	1257	0.41	1352	0.51	1521	0.74	1662	0.96	1791	1.19	2026	1.68	<u>2238</u>	<u>2.21</u>	2441	2.80						
2580	2000	1377	0.53	1462	0.65	1624	0.90	1759	1.14	1882	1.39	2106	1.91	<u>2309</u>	<u>2.47</u>	<u>2499</u>	<u>3.08</u>	2682	3.72	2858	4.41		
2838	2200	1498	0.69	1576	0.81	1728	1.08	1860	1.35	1978	1.62	2192	2.18	2387	2.77	<u>2568</u>	<u>3.40</u>	<u>2740</u>	<u>4.06</u>	<u>2907</u>	<u>4.76</u>	3070	5.51
3096	2400	1621	0.87	1692	1.00	1834	1.28	1963	1.58	2077	1.88	2283	2.48	2470	3.10	<u>2645</u>	<u>3.76</u>	<u>2809</u>	<u>4.44</u>	<u>2967</u>	<u>5.17</u>	<u>3121</u>	<u>5.93</u>
3354	2600	1744	1.08	1811	1.22	1942	1.52	2067	1.85	2178	2.17	2376	2.81	2557	3.47	<u>2726</u>	<u>4.15</u>	<u>2886</u>	<u>4.87</u>	<u>3037</u>	<u>5.62</u>	<u>3183</u>	<u>6.39</u>
3612	2800	1868	1.32	1930	1.47	2052	1.79	2172	2.14	2282	2.49	2474	3.18	<u>2649</u>	<u>3.88</u>	<u>2812</u>	<u>4.60</u>	<u>2966</u>	<u>5.34</u>	<u>3114</u>	<u>6.12</u>	<u>3255</u>	<u>6.92</u>
3870	3000	1993	1.60	2051	1.76	2165	2.10	2279	2.46	2386	2.84	2574	3.58	<u>2743</u>	<u>4.32</u>	<u>2902</u>	<u>5.08</u>	<u>3051</u>	<u>5.86</u>	<u>3194</u>	<u>6.66</u>	<u>3331</u>	<u>7.49</u>
4128	3200	2118	1.92	2173	2.09	2280	2.44	2387	2.82</														

# Performance Data – BIUB

## 16 BIUB

Outlet Area - 1.57 ft<sup>2</sup>      Wheel Dia. - 16.50 Inches      Tip Speed - 4.32 x RPM      Max. BHP = 0.339 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1256	800	648	0.09	777	0.15	992	0.30																
1570	1000	741	0.14	858	0.21	<u>1051</u>	<u>0.38</u>	1220	0.57														
1884	1200	837	0.20	947	0.29	1125	0.47	<u>1279</u>	<u>0.68</u>	<u>1421</u>	<u>0.90</u>												
2198	1400	937	0.27	<u>1041</u>	<u>0.38</u>	1208	0.59	1351	0.81	<u>1482</u>	<u>1.05</u>	1722	1.59										
2512	1600	1041	0.37	1137	0.49	1295	0.73	1431	0.98	1554	1.24	<u>1778</u>	<u>1.80</u>	1985	2.42								
2826	1800	1149	0.50	1234	0.63	1387	0.90	1516	1.17	1633	1.45	1845	2.05	<u>2038</u>	<u>2.70</u>	2222	3.40						
3140	2000	1258	0.66	1335	0.79	1482	1.10	1604	1.39	1716	1.70	1919	2.33	<u>2103</u>	<u>3.01</u>	<u>2275</u>	<u>3.74</u>	2441	4.53	2601	5.36		
3454	2200	1369	0.84	1440	0.99	1577	1.32	1697	1.65	1803	1.98	1998	2.66	2174	3.37	<u>2339</u>	<u>4.14</u>	<u>2495</u>	<u>4.94</u>	<u>2646</u>	<u>5.80</u>	2793	6.69
3768	2400	1481	1.06	1546	1.22	1674	1.57	1791	1.94	1894	2.29	2081	3.03	2250	3.78	<u>2409</u>	<u>4.57</u>	<u>2559</u>	<u>5.41</u>	<u>2702</u>	<u>6.29</u>	<u>2841</u>	<u>7.21</u>
4082	2600	1594	1.33	1654	1.49	1773	1.86	1887	2.26	1987	2.65	2167	3.43	2331	4.23	<u>2484</u>	<u>5.06</u>	<u>2629</u>	<u>5.93</u>	<u>2766</u>	<u>6.84</u>	<u>2899</u>	<u>7.79</u>
4396	2800	1707	1.63	1764	1.81	1874	2.19	1983	2.62	2082	3.04	2256	3.88	<u>2415</u>	<u>4.73</u>	<u>2563</u>	<u>5.61</u>	<u>2702</u>	<u>6.50</u>	<u>2836</u>	<u>7.45</u>	<u>2964</u>	<u>8.42</u>
4710	3000	1822	1.97	1874	2.16	1977	2.57	2080	3.01	2177	3.47	2348	4.37	<u>2501</u>	<u>5.28</u>	<u>2645</u>	<u>6.20</u>	<u>2780</u>	<u>7.14</u>	<u>2910</u>	<u>8.12</u>	<u>3035</u>	<u>9.13</u>
5024	3200	1936	2.37	1986	2.57	2083	3.00	2179	3.46	2273	3.95	<u>2441</u>	<u>4.91</u>	<u>2590</u>	<u>5.87</u>	<u>2730</u>	<u>6.85</u>	<u>2862</u>	<u>7.84</u>	<u>2987</u>	<u>8.84</u>		
5338	3400	2051	2.81	2098	3.03	2190	3.48	2280	3.95	<u>2370</u>	<u>4.46</u>	<u>2536</u>	<u>5.50</u>	<u>2682</u>	<u>6.52</u>	<u>2817</u>	<u>7.54</u>	<u>2945</u>	<u>8.58</u>				
5652	3600	2166	3.31	2211	3.54	2298	4.01	<u>2383</u>	<u>4.50</u>	<u>2469</u>	<u>5.04</u>	<u>2631</u>	<u>6.13</u>	<u>2774</u>	<u>7.21</u>	<u>2906</u>	<u>8.29</u>	<u>3031</u>	<u>9.38</u>				
5966	3800	2282	3.87	2324	4.11	<u>2407</u>	<u>4.60</u>	<u>2488</u>	<u>5.11</u>	<u>2569</u>	<u>5.66</u>	<u>2727</u>	<u>6.82</u>	<u>2869</u>	<u>7.97</u>	<u>2997</u>	<u>9.09</u>						

MAXIMUM RPM: Class I — 2352    Class II — 3058

## 18 BIUB

Outlet Area - 1.92 ft<sup>2</sup>      Wheel Dia. - 18.25 Inches      Tip Speed - 4.78 x RPM      Max. BHP = 0.552 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1536	800	569	0.10	695	0.17																		
1920	1000	651	0.15	757	0.24	<u>951</u>	<u>0.42</u>	1126	0.64														
2304	1200	741	0.22	831	0.32	1002	0.53	<u>1160</u>	<u>0.76</u>	<u>1306</u>	<u>1.02</u>												
2688	1400	835	0.31	914	0.42	1066	0.66	1208	0.91	<u>1342</u>	<u>1.19</u>												
3072	1600	933	0.43	1003	0.55	1138	0.81	1267	1.09	1391	1.39	<u>1621</u>	<u>2.03</u>										
3456	1800	1032	0.57	1096	0.71	1217	1.00	1335	1.30	1449	1.62	<u>1663</u>	<u>2.30</u>	1864	3.06								
3840	2000	1133	0.75	1191	0.91	1302	1.22	1409	1.55	1514	1.88	1714	2.61	<u>1903</u>	<u>3.40</u>	<u>2081</u>	<u>4.24</u>	2252	5.15				
4224	2200	1235	0.96	1288	1.13	1391	1.48	1489	1.83	1586	2.20	1773	2.96	1950	3.78	<u>2120</u>	<u>4.67</u>	<u>2282</u>	<u>5.60</u>	2437	6.58		
4608	2400	1338	1.22	1387	1.40	1482	1.78	1573	2.16	1663	2.55	1838	3.36	2005	4.22	<u>2165</u>	<u>5.13</u>	<u>2320</u>	<u>6.11</u>	<u>2469</u>	<u>7.13</u>	<u>2612</u>	<u>8.18</u>
4992	2600	1441	1.51	1487	1.71	1576	2.12	1661	2.53	1744	2.94	1908	3.81	2066	4.71	<u>2218</u>	<u>5.66</u>	<u>2365</u>	<u>6.67</u>	<u>2507</u>	<u>7.72</u>	<u>2645</u>	<u>8.81</u>
5376	2800	1545	1.85	1588	2.07	1671	2.50	1751	2.94	1829	3.39	1982	4.30	<u>2132</u>	<u>5.25</u>	<u>2276</u>	<u>6.25</u>	<u>2416</u>	<u>7.28</u>	<u>2553</u>	<u>8.38</u>	<u>2685</u>	<u>9.51</u>
5760	3000	1650	2.25	1689	2.47	1768	2.94	1843	3.41	1917	3.88	2061	4.86	<u>2202</u>	<u>5.85</u>	<u>2340</u>	<u>6.89</u>	<u>2473</u>	<u>7.97</u>	<u>2604</u>	<u>9.09</u>		
6144	3200	1754	2.69	1792	2.94	1865	3.43	1937	3.93	2007	4.43	<u>2143</u>	<u>5.46</u>	<u>2276</u>	<u>6.51</u>	<u>2407</u>	<u>7.59</u>	<u>2535</u>	<u>8.72</u>	<u>2660</u>	<u>9.88</u>		
6528	3400	1859	3.19	1895	3.46	1964	3.98	2032	4.50	2099	5.04	<u>2227</u>	<u>6.12</u>	<u>2354</u>	<u>7.23</u>	<u>2479</u>	<u>8.36</u>	<u>2601</u>	<u>9.53</u>	<u>2720</u>	<u>10.73</u>		
6912	3600	1965	3.76	1998	4.03	2064	4.59	<u>2129</u>	<u>5.15</u>	<u>2192</u>	<u>5.71</u>	<u>2315</u>	<u>6.85</u>	<u>2435</u>	<u>8.01</u>	<u>2554</u>	<u>9.20</u>	<u>2670</u>	<u>10.40</u>				
7296	3800	2070	4.39	2102	4.68	<u>2165</u>	<u>5.26</u>	<u>2226</u>	<u>5.85</u>	<u>2287</u>	<u>6.45</u>	<u>2404</u>	<u>7.64</u>	<u>2518</u>	<u>8.85</u>	<u>2631</u>	<u>10.09</u>						

MAXIMUM RPM: Class I — 2118    Class II — 2729

## 20 BIUB

Outlet Area - 2.30 ft<sup>2</sup>      Wheel Dia. - 20.00 Inches      Tip Speed - 5.24 x RPM      Max. BHP = 0.872 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	519	0.12	634	0.21																		
2300	1000	593	0.18	690	0.28	<u>868</u>	<u>0.51</u>	1027	0.77														
2760	1200	675	0.27	758	0.38	914	0.63	<u>1058</u>	<u>0.91</u>	<u>1191</u>	<u>1.22</u>												
3220	1400	761	0.37	833	0.51	971	0.78	1102	1.09	<u>1224</u>	<u>1.42</u>												
3680	1600	849	0.51	914	0.66	1037	0.97	1155	1.30	1268	1.66	<u>1479</u>	<u>2.44</u>										
4140	1800	940	0.68	998	0.85	1109	1.20	1217	1.56	1321	1.94	<u>1517</u>	<u>2.76</u>	<u>1700</u>	<u>3.66</u>								
4600	2000	1031	0.89	1085	1.08	1186	1.46	1284	1.85	1380	2.25	1563	3.12	<u>1735</u>	<u>4.07</u>	<u>1899</u>	<u>5.09</u>	2054	6.17				
5060	2200	1124	1.15	1173	1.35	1267	1.77	1357	2.19	1445	2.62	1616	3.54	1778	4.53	<u>1933</u>	<u>5.59</u>	<u>2081</u>	<u>6.71</u>	<u>2223</u>	<u>7.89</u>		
5520	2400	1218	1.45	1263	1.67	1350	2.12	1433	2.58	1515	3.05	1675	4.02	1828	5.05	<u>1975</u>	<u>6.15</u>	<u>2116</u>	<u>7.32</u>	<u>2252</u>	<u>8.54</u>	<u>2383</u>	<u>9.81</u>
5980	2600	1312	1.80	1354	2.04	1435	2.53	1513	3.02	1589	3.52	1739	4.55	1883	5.64	<u>2022</u>	<u>6.78</u>	<u>2157</u>	<u>7.99</u>	<u>2287</u>	<u>9.25</u>	<u>2413</u>	<u>10.56</u>
6440	2800	1407	2.21	1446	2.47	1522	2.99	1595	3.52	1666	4.05	1806	5.14	<u>1943</u>	<u>6.28</u>	<u>2075</u>	<u>7.48</u>	<u>2203</u>	<u>8.72</u>	<u>2328</u>	<u>10.03</u>	<u>2449</u>	<u>11.39</u>
6900	3000	1502	2.68	1538	2.95	1610	3.51	1679	4.07	1746	4.64	1878	5.81	<u>2007</u>	<u>7.00</u>	<u>2133</u>	<u>8.25</u>	<u>2255</u>	<u>9.54</u>	<u>2374</u>	<u>10.88</u>	<u>2490</u>	<u>12.28</u>
7360	3200	1597	3.21	1631	3.50	1699	4.10	1764	4.69	1828	5.30	<u>1952</u>	<u>6.52</u>	<u>2074</u>	<u>7.78</u>	<u>2194</u>	<u>9.08</u>	<u>2311</u>	<u>10.43</u>	<u>2425</u>	<u>11.82</u>		
7820	3400	1692	3.81	1725	4.12	1789	4.75	1851	5.38	1911	6.02	<u>2029</u>	<u>7.31</u>	<u>2145</u>	<u>8.65</u>	<u>2259</u>	<u>10.00</u>	<u>2371</u>	<u>11.40</u>	<u>2480</u>	<u>12.84</u>		
8280	3600	1788	4.48	1819	4.81	1879	5.47	<u>1938</u>	<u>6.14</u>	<u>1996</u>	<u>6.82</u>	<u>2108</u>	<u>8.18</u>	<u>2218</u>	<u>9.57</u>	<u>2327</u>	<u>11.00</u>	<u>2434</u>	<u>12.45</u>				
8740	3800	1884	5.23	1913	5.58	<u>1971</u>	<u>6.28</u>	<u>2027</u>	<u>6.98</u>	<u>2082</u>	<u>7.69</u>	<u>2189</u>	<u>9.12</u>	<u>2294</u>	<u>10.58</u>	<u>2398</u>	<u>12.08</u>						

MAXIMUM RPM: Class I — 1932    Class II — 2490

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.  
 Power rating (bhp) does not include belt drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown in regular face type.  
 Class II fans are shown in bold face type.  
 Underlined figures indicate maximum static efficiencies.

# Performance Data – BIUB

## 22 BIUB

Outlet Area - 2.85 ft<sup>2</sup>      Wheel Dia. - 22.25 Inches      Tip Speed - 5.83 x RPM      Max. BHP = 1.49 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2280	800	466	0.15	570	0.26																		
2850	1000	533	0.23	621	0.35	<u>780</u>	<u>0.63</u>	923	0.95														
3420	1200	607	0.33	681	0.47	822	0.78	<u>951</u>	<u>1.13</u>	<u>1071</u>	<u>1.52</u>												
3990	1400	685	0.46	749	0.63	874	0.97	991	1.35	<u>1101</u>	<u>1.76</u>												
4560	1600	764	0.63	822	0.82	933	1.21	1039	1.62	1140	2.05	<u>1330</u>	<u>3.02</u>										
5130	1800	846	0.85	898	1.06	998	1.49	1094	1.93	1188	2.40	<u>1364</u>	<u>3.42</u>	1528	4.53								
5700	2000	928	1.11	976	1.34	1067	1.81	1155	2.29	1241	2.79	1405	3.87	1560	5.04	1707	6.30	1847	7.64				
6270	2200	1012	1.43	1055	1.68	1139	2.19	1220	2.71	1300	3.26	1453	4.39	1599	5.61	<u>1738</u>	<u>6.92</u>	<u>1871</u>	<u>8.31</u>	1999	9.78		
6840	2400	1096	1.80	1136	2.07	1214	2.63	1289	3.20	1363	3.78	1506	4.98	1644	6.27	1775	7.62	<u>1902</u>	<u>9.06</u>	<u>2024</u>	<u>10.57</u>	<u>2142</u>	<u>12.15</u>
7410	2600	1181	2.24	1218	2.53	1291	3.13	1361	3.74	1429	4.36	1564	5.64	1693	6.98	1818	8.40	1939	9.89	<u>2056</u>	<u>11.46</u>	<u>2169</u>	<u>13.08</u>
7980	2800	1266	2.75	1301	3.06	1369	3.71	1435	4.34	1499	5.02	1625	6.38	1747	7.78	1866	9.27	1981	10.81	<u>2093</u>	<u>12.43</u>	<u>2202</u>	<u>14.12</u>
8550	3000	1351	3.32	1384	3.67	1448	4.35	1510	5.05	1571	5.76	1689	7.20	1805	8.68	1918	10.22	2028	11.83	2135	13.50		
9120	3200	1437	3.99	1468	4.35	1528	5.08	1587	5.82	1644	6.56	1756	8.09	1866	9.66	1973	11.25	2078	12.93	2180	14.64		
9690	3400	1523	4.73	1552	5.11	1609	5.89	1665	6.68	1720	7.47	1825	9.07	1929	10.72	2032	12.40	2132	14.13	2230	15.92		
10260	3600	1609	5.57	1637	5.98	1691	6.79	1744	7.62	1796	8.46	1897	10.15	1995	11.87	2093	13.64	2189	15.43				
10830	3800	1696	6.50	1722	6.93	<b>1773</b>	<b>7.79</b>	<b>1824</b>	<b>8.67</b>	<b>1874</b>	<b>9.55</b>	<b>1970</b>	<b>11.33</b>	<b>2064</b>	<b>13.14</b>	<b>2157</b>	<b>14.98</b>						

MAXIMUM RPM: Class I — 1737    Class II — 2238

## 24 BIUB

Outlet Area - 3.45 ft<sup>2</sup>      Wheel Dia. - 24.50 Inches      Tip Speed - 6.41 x RPM      Max. BHP = 2.40 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	423	0.18	517	0.31																		
3450	1000	484	0.27	563	0.42	<u>708</u>	<u>0.76</u>	838	1.15														
4140	1200	551	0.40	618	0.57	746	0.95	<u>863</u>	<u>1.37</u>	<u>972</u>	<u>1.84</u>												
4830	1400	621	0.56	680	0.76	793	1.18	899	1.63	<u>999</u>	<u>2.13</u>												
5520	1600	693	0.77	746	0.99	846	1.46	943	1.96	1035	2.49	<u>1207</u>	<u>3.65</u>										
6210	1800	767	1.03	815	1.28	905	1.79	993	2.33	1078	2.90	<u>1238</u>	<u>4.13</u>	1388	5.49								
6900	2000	842	1.34	885	1.62	968	2.19	1048	2.77	1126	3.38	1276	4.69	1416	6.10	1550	7.63	1677	9.25				
7590	2200	917	1.72	957	2.03	1034	2.65	1107	3.28	1180	3.94	1319	5.32	1452	6.80	<u>1578</u>	<u>8.38</u>	<u>1699</u>	<u>10.07</u>	1815	11.84		
8280	2400	994	2.18	1031	2.51	1101	3.17	1170	3.87	1237	4.57	1367	6.02	1492	7.58	1612	9.23	<u>1727</u>	<u>10.97</u>	<u>1838</u>	<u>12.80</u>	<u>1945</u>	<u>14.71</u>
8970	2600	1071	2.71	1105	3.06	1171	3.79	1235	4.53	1297	5.28	1419	6.82	1537	8.46	1651	10.18	1760	11.97	<u>1867</u>	<u>13.88</u>	<u>1969</u>	<u>15.83</u>
9660	2800	1148	3.32	1180	3.70	1242	4.48	1301	5.26	1360	6.07	1474	7.71	1586	9.43	1694	11.22	1798	13.07	1900	15.04	<u>1999</u>	<u>17.08</u>
10350	3000	1225	4.01	1255	4.42	1313	5.25	1370	6.10	1425	6.96	1532	8.70	1638	10.49	1741	12.37	1840	14.30	1938	16.33	2032	18.41
11040	3200	1303	4.81	1331	5.25	1386	6.13	1440	7.04	1492	7.94	<u>1593</u>	<u>9.78</u>	<u>1693</u>	<u>11.67</u>	<u>1791</u>	<u>13.62</u>	1886	15.64	1979	17.73		
11730	3400	1381	5.71	1408	6.18	1460	7.12	1510	8.06	1560	9.03	<u>1656</u>	<u>10.97</u>	<u>1751</u>	<u>12.97</u>	<u>1844</u>	<u>15.00</u>	1935	17.09	2024	19.26		
12420	3600	1459	6.72	1484	7.21	1534	8.21	<u>1582</u>	<u>9.21</u>	<u>1629</u>	<u>10.22</u>	<u>1721</u>	<u>12.27</u>	<u>1810</u>	<u>14.35</u>	<u>1899</u>	<u>16.48</u>	1986	18.65				
13110	3800	1538	7.85	1561	8.36	<b>1608</b>	<b>9.41</b>	<b>1654</b>	<b>10.46</b>	<b>1699</b>	<b>11.53</b>	<b>1787</b>	<b>13.69</b>	<b>1872</b>	<b>15.87</b>	<b>1957</b>	<b>18.11</b>						

MAXIMUM RPM: Class I — 1577    Class II — 2033

## 27 BIUB

Outlet Area - 4.19 ft<sup>2</sup>      Wheel Dia. - 27.00 Inches      Tip Speed - 7.07 x RPM      Max. BHP = 4.05 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3352	800	380	0.22	457	0.36	592	0.72																
4190	1000	437	0.33	504	0.50	621	0.89	726	1.33														
5028	1200	498	0.48	557	0.69	661	1.11	<u>755</u>	<u>1.59</u>	<u>843</u>	<u>2.12</u>												
5866	1400	561	0.68	614	0.91	709	1.40	795	1.92	875	2.48	1026	3.75										
6704	1600	627	0.93	674	1.20	761	1.75	840	2.32	914	2.91	<u>1051</u>	<u>4.21</u>	1184	5.74								
7542	1800	693	1.24	736	1.54	816	2.15	890	2.78	959	3.43	1088	4.82	1206	6.32	1324	8.05	1449	10.16				
8380	2000	761	1.63	800	1.96	874	2.63	943	3.33	1007	4.02	1128	5.49	1241	7.08	<u>1346</u>	<u>8.77</u>	<u>1452</u>	<u>10.68</u>	<u>1564</u>	<u>12.93</u>		
9218	2200	829	2.08	865	2.45	934	3.19	998	3.94	1059	4.70	1174	6.30	1280	7.95	1381	9.72	<u>1476</u>	<u>11.58</u>	<u>1572</u>	<u>13.64</u>	<u>1672</u>	<u>15.99</u>
10056	2400	898	2.63	932	3.04	995	3.83	1056	4.65	1113	5.47	1222	7.17	1323	8.93	1419	10.77	<u>1511</u>	<u>12.72</u>	<u>1598</u>	<u>14.74</u>	<u>1686</u>	<u>16.95</u>
10894	2600	968	3.28	999	3.71	1058	4.57	1115	5.45	1169	6.33	1272	8.14	1369	10.02	1461	11.95	1549	13.97	<u>1633</u>	<u>16.07</u>	<u>1714</u>	<u>18.25</u>
11732	2800	1038	4.02	1066	4.47	1122	5.41	1176	6.35	1227	7.29	1325	9.22	1418	11.22	1506	13.26	1590	15.36	1671	17.53	1750	19.82
12570	3000	1108	4.87	1135	5.36	1187	6.36	1238	7.37	1287	8.38	1380	10.42	1469	12.53	1553	14.68	1634	16.88	1712	19.14	1788	21.49
13408	3200	1178	5.83	1203	6.35	1253	7.42	1301	8.50	1348	9.58	<u>1437</u>	<u>11.75</u>	<u>1521</u>	<u>13.95</u>	<u>1602</u>	<u>16.21</u>	1681	18.56	1756	20.91		
14246	3400	1248	6.91	1272	7.47	1320	8.62	1365	9.75	<u>1409</u>	<u>10.88</u>	<u>1495</u>	<u>13.19</u>	<u>1576</u>	<u>15.53</u>	<u>1654</u>	<u>17.90</u>	1729	20.32	1802	22.81		
15084	3600	1319	8.14	1342</																			

# Performance Data – BIUB

## 30 BIUB

Outlet Area - 5.17 ft<sup>2</sup>      Wheel Dia. - 30.00 Inches      Tip Speed - 7.85 x RPM      Max. BHP = 6.86 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4136	800	342	0.27	411	0.45	533	0.89																
5170	1000	393	0.41	453	0.62	558	1.09	653	1.64														
6204	1200	448	0.59	501	0.84	595	1.38	680	1.96	<u>758</u>	<u>2.61</u>												
7238	1400	505	0.84	552	1.12	638	1.73	715	2.36	<u>787</u>	<u>3.05</u>	923	4.63										
8272	1600	564	1.15	606	1.47	684	2.15	756	2.86	823	3.60	<u>946</u>	<u>5.20</u>	1065	7.08								
9306	1800	624	1.53	662	1.90	734	2.65	801	3.44	863	4.24	979	5.94	<u>1085</u>	<u>7.79</u>	1192	9.95	<b>1304</b>	<b>12.53</b>				
10340	2000	685	2.01	720	2.42	786	3.24	848	4.09	906	4.96	1015	6.78	1117	8.75	<u>1212</u>	<u>10.84</u>	<b>1307</b>	<b>13.18</b>	<b>1408</b>	<b>15.98</b>		
11374	2200	746	2.57	778	3.02	840	3.93	898	4.86	953	5.80	1056	7.76	1152	9.81	<u>1242</u>	<u>11.98</u>	<b>1329</b>	<b>14.31</b>	<b>1415</b>	<b>16.84</b>	<b>1505</b>	<b>19.75</b>
12408	2400	808	3.24	838	3.74	895	4.72	950	5.73	1002	6.76	1099	8.84	1190	11.00	<u>1277</u>	<u>13.29</u>	<b>1359</b>	<b>15.67</b>	<b>1438</b>	<b>18.18</b>	<b>1517</b>	<b>20.90</b>
13442	2600	871	4.04	898	4.56	952	5.64	1003	6.71	1052	7.81	1145	10.05	1232	12.36	<u>1314</u>	<u>14.73</u>	<b>1394</b>	<b>17.24</b>	<b>1470</b>	<b>19.85</b>	<b>1543</b>	<b>22.55</b>
14476	2800	933	4.94	959	5.51	1010	6.68	1058	7.84	1104	8.99	1192	11.37	<u>1276</u>	<u>13.84</u>	<u>1355</u>	<u>16.36</u>	<b>1430</b>	<b>18.92</b>	<b>1504</b>	<b>21.64</b>	<b>1575</b>	<b>24.46</b>
15510	3000	996	5.99	1021	6.61	1068	7.84	1114	9.09	1158	10.33	1242	12.87	<u>1321</u>	<u>15.43</u>	<u>1397</u>	<u>18.09</u>	<b>1470</b>	<b>20.82</b>	<b>1540</b>	<b>23.59</b>	<b>1609</b>	<b>26.51</b>
16544	3200	1060	7.20	1083	7.85	1127	9.15	1171	10.49	1212	11.79	<u>1293</u>	<u>14.49</u>	<u>1369</u>	<u>17.22</u>	<u>1442</u>	<u>20.02</u>	<b>1512</b>	<b>22.87</b>	<b>1580</b>	<b>25.79</b>		
17578	3400	1123	8.53	1145	9.23	1187	10.62	1228	12.02	<u>1268</u>	<u>13.43</u>	<u>1345</u>	<u>16.27</u>	<u>1418</u>	<u>19.15</u>	<u>1488</u>	<u>22.08</u>	<b>1556</b>	<b>25.08</b>	<b>1621</b>	<b>28.12</b>		
18612	3600	1187	10.05	1207	10.77	1247	12.24	<b>1286</b>	<b>13.72</b>	<b>1324</b>	<b>15.21</b>	<b>1398</b>	<b>18.21</b>	<b>1468</b>	<b>21.23</b>	<b>1536</b>	<b>24.33</b>	<b>1601</b>	<b>27.44</b>				
19646	3800	1250	11.71	<b>1270</b>	<b>12.50</b>	<b>1308</b>	<b>14.05</b>	<b>1345</b>	<b>15.60</b>	<b>1382</b>	<b>17.20</b>	<b>1452</b>	<b>20.32</b>	<b>1520</b>	<b>23.52</b>	<b>1585</b>	<b>26.75</b>						

MAXIMUM RPM: Class I — 1257      Class II — 1623

## 33 BIUB

Outlet Area - 6.26 ft<sup>2</sup>      Wheel Dia. - 33.00 Inches      Tip Speed - 8.64 x RPM      Max. BHP = 11.05 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	800	311	0.33	374	0.54	484	1.07																
6260	1000	357	0.49	412	0.75	508	1.33	594	1.99														
7512	1200	407	0.72	455	1.02	541	1.67	<u>618</u>	<u>2.37</u>	<u>690</u>	<u>3.17</u>												
8764	1400	459	1.01	502	1.36	580	2.09	650	2.86	716	3.70	839	5.60										
10016	1600	513	1.39	551	1.78	622	2.60	688	3.47	748	4.35	<u>860</u>	<u>6.30</u>	968	8.56								
11268	1800	567	1.85	602	2.30	668	3.22	728	4.16	785	5.14	890	7.19	<u>987</u>	<u>9.45</u>	1083	12.02	<b>1186</b>	<b>15.19</b>				
12520	2000	623	2.43	655	2.93	715	3.93	771	4.96	824	6.01	923	8.21	1015	10.57	<u>1102</u>	<u>13.13</u>	<b>1188</b>	<b>15.95</b>	<b>1280</b>	<b>19.34</b>		
13772	2200	679	3.12	708	3.66	764	4.77	817	5.89	867	7.04	960	9.39	1047	11.86	<u>1130</u>	<u>14.53</u>	<b>1208</b>	<b>17.31</b>	<b>1286</b>	<b>20.37</b>	<b>1368</b>	<b>23.89</b>
15024	2400	735	3.93	762	4.52	814	5.72	864	6.95	911	8.18	1000	10.72	1082	13.32	<u>1161</u>	<u>16.09</u>	<b>1236</b>	<b>18.99</b>	<b>1308</b>	<b>22.04</b>	<b>1379</b>	<b>25.29</b>
16276	2600	792	4.89	817	5.53	866	6.84	912	8.13	957	9.47	1041	12.17	1120	14.96	<u>1195</u>	<u>17.84</u>	<b>1267</b>	<b>20.85</b>	<b>1336</b>	<b>24.00</b>	<b>1403</b>	<b>27.31</b>
17528	2800	849	6.00	873	6.70	918	8.08	962	9.49	1004	10.89	1084	13.77	1160	16.75	<u>1232</u>	<u>19.81</u>	<b>1301</b>	<b>22.95</b>	<b>1367</b>	<b>26.17</b>	<b>1432</b>	<b>29.61</b>
18780	3000	906	7.26	929	8.02	972	9.52	1013	11.01	1053	12.51	1129	15.56	1202	18.73	<u>1271</u>	<u>21.95</u>	<b>1337</b>	<b>25.23</b>	<b>1401</b>	<b>28.61</b>	<b>1463</b>	<b>32.10</b>
20032	3200	964	8.72	985	9.51	1025	11.08	1065	12.71	1103	14.31	<u>1176</u>	<u>17.56</u>	<u>1245</u>	<u>20.86</u>	<u>1311</u>	<u>24.23</u>	<b>1375</b>	<b>27.70</b>	<b>1437</b>	<b>31.25</b>		
21284	3400	1022	10.36	1041	11.17	1080	12.88	1117	14.57	<b>1153</b>	<b>16.26</b>	<b>1223</b>	<b>19.70</b>	<b>1290</b>	<b>23.22</b>	<b>1353</b>	<b>26.73</b>	<b>1415</b>	<b>30.38</b>	<b>1474</b>	<b>34.05</b>		
22536	3600	1079	12.16	1098	13.06	1135	14.86	<b>1170</b>	<b>16.64</b>	<b>1205</b>	<b>18.46</b>	<b>1271</b>	<b>22.04</b>	<b>1335</b>	<b>25.71</b>	<b>1397</b>	<b>29.48</b>	<b>1456</b>	<b>33.25</b>				
23788	3800	1137	14.19	<b>1155</b>	<b>15.14</b>	<b>1190</b>	<b>17.04</b>	<b>1224</b>	<b>18.94</b>	<b>1257</b>	<b>20.84</b>	<b>1321</b>	<b>24.65</b>	<b>1382</b>	<b>28.47</b>	<b>1441</b>	<b>32.37</b>						

MAXIMUM RPM: Class I — 1143      Class II — 1475

## 36 BIUB

Outlet Area - 7.66 ft<sup>2</sup>      Wheel Dia. - 36.50 Inches      Tip Speed - 9.56 x RPM      Max. BHP = 19.42 (RPM÷1000)<sup>3</sup>

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	271	0.38	326	0.65	430	1.27																
7660	1000	312	0.57	359	0.89	445	1.58	527	2.37														
9192	1200	357	0.84	397	1.20	472	1.99	543	2.86	<u>610</u>	<u>3.77</u>												
10724	1400	404	1.19	439	1.60	505	2.48	567	3.41	628	4.44	<u>744</u>	<u>6.63</u>										
12256	1600	453	1.65	483	2.09	542	3.07	598	4.09	653	5.20	<u>758</u>	<u>7.57</u>	859	10.14								
13788	1800	502	2.21	529	2.70	582	3.77	633	4.89	683	6.08	779	8.62	<u>871</u>	<u>11.33</u>	961	14.26						
15320	2000	552	2.91	577	3.46	625	4.61	671	5.82	717	7.09	805	9.79	890	12.68	<u>972</u>	<u>15.70</u>	<b>1053</b>	<b>18.93</b>				
16852	2200	603	3.76	625	4.34	669	5.58	712	6.90	754	8.26	836	11.14	915	14.20	<u>992</u>	<u>17.44</u>	<b>1066</b>	<b>20.75</b>	<b>1139</b>	<b>24.23</b>	<b>1215</b>	<b>28.13</b>
18384	2400	654	4.76	674	5.38	715	6.73	754	8.11	793	9.58	869	12.62	943	15.85	<u>1015</u>	<u>19.26</u>	<b>1085</b>	<b>22.79</b>	<b>1153</b>	<b>26.39</b>	<b>1221</b>	<b>30.22</b>
19916	2600	705	5.94	724	6.62	761	8.02	798	9.52	835	11.10	906	14.34	975	17.72	<u>1042</u>	<u>21.26</u>	<b>1108</b>	<b>24.97</b>	<b>1173</b>	<b>28.83</b>	<b>1236</b>	<b>32.73</b>
21448	2800	756	7.29	774	8.03	809	9.54	843	11.10	877	12.75	944	16.20	<u>1009</u>	<u>19.76</u>	<u>1073</u>	<u>23.51</u>	<b>1135</b>	<b>27.37</b>	<b>1196</b>	<b>31.37</b>	<b>1256</b>	<b>35.49</b>
22980	3000	808	8.86	824	9.62	857	11.24	889	12.89	921	14.63	984	18.27	<u>1045</u>	<u>22.00</u>	<u>1106</u>							

# Performance Data – FCUB

## 12 FCUB

Outlet Area - 0.86 ft<sup>2</sup>      Wheel Dia. - 12.25 Inches      Tip Speed - 3.21 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	435	0.05																				
860	1000	461	0.08	604	0.13																		
1032	1200	492	0.11	623	0.17																		
1204	1400	530	0.15	649	0.21	853	0.36																
1376	1600	572	0.21	680	0.28	871	0.43	<u>1041</u>	<u>0.60</u>														
1548	1800	620	0.28	714	0.35	894	0.52	1050	0.70														
1720	2000	673	0.37	753	0.44	921	0.62	1071	0.81	1207	1.02												
1892	2200	728	0.47	795	0.55	952	0.74	1095	0.95	1224	1.16	1348	1.40										
2064	2400	784	0.60	840	0.67	984	0.88	1121	1.10	1247	1.33	1363	1.57	1476	1.82								
2236	2600	842	0.76	891	0.83	1020	1.04	1151	1.27	1271	1.51	1384	1.77	1490	2.03	1595	2.31	<u>1700</u>	<u>2.61</u>				
2408	2800	900	0.94	944	1.01	1059	1.22	1182	1.46	1299	1.72	1408	1.99	1511	2.26	1609	2.55	1706	2.85	<u>1803</u>	<u>3.16</u>		
2580	3000	958	1.14	998	1.21	1100	1.42	1216	1.69	1328	1.95	1434	2.23	1534	2.52	1629	2.82	1720	3.12	1811	3.44		
2752	3200	1017	1.37	1054	1.45	1143	1.65	1252	1.93	1360	2.21	1462	2.50	1559	2.80	1653	3.12	1741	3.43	1826	3.75		
2924	3400	1076	1.63	1111	1.72	1190	1.91	1292	2.20	1393	2.50	1492	2.80	1586	3.11	1677	3.44	1764	3.77	1847	4.10		
3096	3600	1136	1.93	1168	2.02	1240	2.21	1332	2.50	1428	2.81	1524	3.13	1616	3.46	1703	3.79	1788	4.13	1870	4.49		
3268	3800	1196	2.27	1226	2.35	1292	2.55	1374	2.83	1466	3.15	1557	3.49	1647	3.83	1732	4.17	1814	4.53				

MAXIMUM RPM: Class I — 1559    Class II — 1871

## 13 FCUB

Outlet Area - 1.05 ft<sup>2</sup>      Wheel Dia. - 13.50 Inches      Tip Speed - 3.53 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	395	0.07																				
1050	1000	419	0.10	548	0.16																		
1260	1200	448	0.14	566	0.20																		
1470	1400	482	0.19	590	0.26	774	0.43																
1680	1600	520	0.25	618	0.34	791	0.53	<u>945</u>	<u>0.74</u>														
1890	1800	565	0.34	650	0.43	812	0.63	954	0.85														
2100	2000	613	0.45	685	0.54	837	0.76	973	1.00	1096	1.25												
2310	2200	663	0.58	723	0.67	865	0.91	995	1.16	1112	1.42	1223	1.70										
2520	2400	715	0.74	765	0.83	895	1.08	1019	1.35	1133	1.63	1238	1.92	1340	2.23	<u>1442</u>	<u>2.56</u>						
2730	2600	767	0.93	811	1.02	928	1.28	1046	1.56	1155	1.85	1258	2.17	1353	2.48	1447	2.82	<u>1542</u>	<u>3.18</u>				
2940	2800	820	1.15	860	1.24	964	1.50	1075	1.80	1180	2.11	1279	2.44	1373	2.78	1461	3.12	1548	3.48	<u>1637</u>	<u>3.87</u>		
3150	3000	874	1.41	910	1.49	1001	1.75	1106	2.07	1208	2.40	1303	2.74	1394	3.09	1480	3.45	1562	3.82	1644	4.20		
3360	3200	927	1.69	961	1.79	1041	2.03	1139	2.37	1236	2.71	1329	3.07	1417	3.44	1501	3.82	1582	4.21	1659	4.60		
3570	3400	982	2.02	1013	2.12	1084	2.36	1175	2.70	1267	3.07	1357	3.44	1442	3.82	1524	4.22	1603	4.62	1678	5.03		
3780	3600	1036	2.38	1065	2.49	1129	2.72	1212	3.07	1299	3.45	1386	3.84	1469	4.24	1548	4.65	1625	5.07				
3990	3800	1090	2.79	1118	2.90	1177	3.14	1251	3.48	1334	3.88	1416	4.28	1497	4.69	1574	5.11	1649	5.55				

MAXIMUM RPM: Class I — 1415    Class II — 1698

## 15 FCUB

Outlet Area - 1.29 ft<sup>2</sup>      Wheel Dia. - 15.00 Inches      Tip Speed - 3.93 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	800	355	0.08																				
1290	1000	376	0.12	493	0.19																		
1548	1200	402	0.17	509	0.25																		
1806	1400	433	0.23	530	0.32	696	0.53																
2064	1600	467	0.31	555	0.41	711	0.64	<u>850</u>	<u>0.90</u>														
2322	1800	506	0.41	583	0.53	730	0.77	858	1.05														
2580	2000	550	0.55	615	0.66	752	0.93	874	1.22	986	1.53												
2838	2200	595	0.71	649	0.82	777	1.11	894	1.42	1000	1.75	1101	2.09										
3096	2400	641	0.91	687	1.01	804	1.32	916	1.65	1018	1.99	1113	2.35	1205	2.73								
3354	2600	688	1.14	728	1.24	833	1.56	940	1.91	1038	2.27	1131	2.66	1217	3.04	1302	3.46	<u>1388</u>	<u>3.91</u>				
3612	2800	735	1.40	771	1.51	865	1.83	966	2.20	1061	2.59	1150	2.99	1234	3.40	1314	3.82	1393	4.27	<u>1473</u>	<u>4.75</u>		
3870	3000	783	1.71	816	1.82	899	2.14	993	2.53	1085	2.93	1171	3.35	1253	3.79	1331	4.23	1405	4.68	1479	5.16		
4128	3200	831	2.06	861	2.17	934	2.48	1023	2.90	1111	3.32	1194	3.75	1274	4.22	1350	4.68	1422	5.15	1492	5.64		
4386	3400	879	2.45	907	2.57	972	2.87	1055	3.30	1138	3.75	1219	4.20	1296	4.68	1370	5.17	1441	5.66	1509	6.16		
4644	3600	928	2.90	954	3.02	1013	3.32	1088	3.75	1167	4.22	1245	4.70	1320	5.19	1391	5.68	1461	6.21	1528	6.74		
4902	3800	977	3.40	1001	3.52	1055	3.82	1122	4.24	1198	4.74	1272	5.23	1345	5.74	1415	6.27	1482	6.80				

MAXIMUM RPM: Class I — 1273    Class II — 1528

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.  
 Power rating (bhp) does not include belt drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown in regular face type.  
 Class II fans are shown in **bold** face type.  
Underlined figures indicate maximum static efficiencies.

# Performance Data – FCUB

## 16 FCUB

Outlet Area - 1.57 ft<sup>2</sup>      Wheel Dia. - 16.50 Inches      Tip Speed - 4.32 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1256	800	324	0.10																				
1570	1000	343	0.14	448	0.23																		
1884	1200	366	0.20	464	0.31																		
2198	1400	395	0.28	483	0.39	634	0.65																
2512	1600	426	0.38	506	0.51	647	0.79	<u>773</u>	<u>1.10</u>														
2826	1800	462	0.51	532	0.65	665	0.95	780	1.27														
3140	2000	502	0.67	561	0.81	685	1.14	796	1.49	897	1.86												
3454	2200	543	0.87	592	1.01	708	1.36	814	1.74	910	2.13	1001	2.55										
3768	2400	585	1.11	627	1.24	733	1.62	834	2.01	927	2.44	1013	2.87	1096	3.33	<b>1180</b>	<b>3.84</b>						
4082	2600	628	1.39	664	1.52	760	1.91	856	2.33	946	2.78	1029	3.24	1107	3.71	<b>1184</b>	<b>4.21</b>	<b>1262</b>	<b>4.76</b>				
4396	2800	672	1.73	704	1.85	789	2.25	880	2.69	966	3.16	1047	3.65	1123	4.15	<b>1196</b>	<b>4.67</b>	<b>1267</b>	<b>5.20</b>	<b>1339</b>	<b>5.78</b>		
4710	3000	715	2.10	745	2.24	820	2.62	905	3.09	988	3.58	1066	4.09	1141	4.63	<b>1211</b>	<b>5.16</b>	<b>1279</b>	<b>5.72</b>	<b>1345</b>	<b>6.29</b>		
5024	3200	760	2.54	787	2.68	852	3.04	933	3.55	1012	4.06	1088	4.60	1160	5.15	<b>1229</b>	<b>5.72</b>	<b>1294</b>	<b>6.28</b>	<b>1357</b>	<b>6.87</b>		
5338	3400	804	3.02	829	3.17	887	3.52	962	4.05	1037	4.59	1110	5.14	1180	5.71	<b>1247</b>	<b>6.31</b>	<b>1312</b>	<b>6.92</b>	<b>1373</b>	<b>7.52</b>		
5652	3600	848	3.57	872	3.72	925	4.08	992	4.59	<b>1063</b>	<b>5.16</b>	<b>1134</b>	<b>5.74</b>	<b>1202</b>	<b>6.34</b>	<b>1267</b>	<b>6.95</b>	<b>1330</b>	<b>7.59</b>				
5966	3800	893	4.18	915	4.34	964	4.70	<b>1024</b>	<b>5.20</b>	<b>1092</b>	<b>5.80</b>	<b>1159</b>	<b>6.41</b>	<b>1225</b>	<b>7.02</b>	<b>1288</b>	<b>7.65</b>	<b>1349</b>	<b>8.30</b>				

MAXIMUM RPM: Class I — 1157    Class II — 1389

## 18 FCUB

Outlet Area - 1.92 ft<sup>2</sup>      Wheel Dia. - 18.25 Inches      Tip Speed - 4.78 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1536	800	293	0.11																				
1920	1000	313	0.16	406	0.26																		
2304	1200	339	0.23	421	0.34	<u>566</u>	<u>0.60</u>																
2688	1400	368	0.33	441	0.44	574	0.73																
3072	1600	399	0.46	466	0.58	587	0.88	697	1.22														
3456	1800	432	0.62	494	0.76	605	1.06	708	1.43	804	1.82												
3840	2000	466	0.81	524	0.97	626	1.28	722	1.66	812	2.08	898	2.52										
4224	2200	501	1.04	555	1.22	651	1.56	740	1.93	825	2.37	906	2.84	984	3.33								
4608	2400	536	1.31	587	1.51	677	1.87	761	2.26	842	2.71	918	3.20	992	3.72	<b>1064</b>	<b>4.25</b>	<b>1133</b>	<b>4.80</b>				
4992	2600	572	1.63	620	1.84	706	2.24	785	2.65	861	3.10	934	3.61	1004	4.15	<b>1072</b>	<b>4.71</b>	<b>1138</b>	<b>5.27</b>	<b>1203</b>	<b>5.87</b>		
5376	2800	609	2.01	654	2.23	736	2.67	811	3.10	883	3.56	952	4.06	1019	4.62	<b>1084</b>	<b>5.21</b>	<b>1147</b>	<b>5.81</b>	<b>1209</b>	<b>6.42</b>		
5760	3000	646	2.43	689	2.68	767	3.15	838	3.60	906	4.07	972	4.58	1036	5.14	<b>1099</b>	<b>5.76</b>	<b>1159</b>	<b>6.38</b>	<b>1219</b>	<b>7.04</b>		
6144	3200	683	2.91	724	3.18	799	3.69	867	4.17	932	4.67	995	5.19	<b>1056</b>	<b>5.75</b>	<b>1116</b>	<b>6.36</b>	<b>1174</b>	<b>7.00</b>	<b>1231</b>	<b>7.68</b>		
6528	3400	721	3.46	760	3.75	831	4.28	897	4.80	959	5.32	1019	5.86	<b>1078</b>	<b>6.44</b>	<b>1135</b>	<b>7.04</b>	<b>1191</b>	<b>7.69</b>	<b>1246</b>	<b>8.39</b>		
6912	3600	759	4.08	796	4.38	864	4.94	928	5.51	987	6.04	1045	6.61	<b>1101</b>	<b>7.19</b>	<b>1156</b>	<b>7.81</b>	<b>1210</b>	<b>8.46</b>				
7296	3800	797	4.76	832	5.07	898	5.68	959	6.27	1017	6.85	<b>1072</b>	<b>7.43</b>	<b>1126</b>	<b>8.03</b>	<b>1179</b>	<b>8.66</b>	<b>1230</b>	<b>9.30</b>				

MAXIMUM RPM: Class I — 1046    Class II — 1256

## 20 FCUB

Outlet Area - 2.30 ft<sup>2</sup>      Wheel Dia. - 20.00 Inches      Tip Speed - 5.24 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	268	0.13																				
2300	1000	286	0.19	371	0.31																		
2760	1200	309	0.28	384	0.41	<u>517</u>	<u>0.72</u>																
3220	1400	335	0.40	402	0.53	523	0.87																
3680	1600	364	0.55	425	0.70	535	1.05	636	1.46														
4140	1800	394	0.74	450	0.90	551	1.26	645	1.70	733	2.18												
4600	2000	424	0.96	477	1.15	571	1.53	659	1.99	741	2.49	819	3.02										
5060	2200	456	1.24	505	1.45	593	1.86	675	2.31	753	2.85	827	3.41	898	3.99								
5520	2400	488	1.57	535	1.80	617	2.23	694	2.71	767	3.23	838	3.84	905	4.45	<b>970</b>	<b>5.08</b>	<b>1034</b>	<b>5.75</b>				
5980	2600	521	1.95	565	2.20	643	2.67	716	3.17	785	3.71	852	4.32	916	4.97	<b>978</b>	<b>5.64</b>	<b>1038</b>	<b>6.31</b>	<b>1097</b>	<b>7.02</b>		
6440	2800	554	2.39	596	2.67	671	3.19	739	3.70	805	4.26	868	4.86	929	5.52	<b>989</b>	<b>6.24</b>	<b>1047</b>	<b>6.96</b>	<b>1103</b>	<b>7.69</b>		
6900	3000	588	2.90	627	3.19	699	3.76	764	4.30	826	4.87	886	5.48	945	6.15	<b>1002</b>	<b>6.88</b>	<b>1057</b>	<b>7.63</b>	<b>1112</b>	<b>8.42</b>		
7360	3200	622	3.48	659	3.79	728	4.40	790	4.97	849	5.56	907	6.20	<b>963</b>	<b>6.87</b>	<b>1017</b>	<b>7.59</b>	<b>1071</b>	<b>8.39</b>	<b>1123</b>	<b>9.20</b>		
7820	3400	656	4.12	692	4.47	757	5.11	817	5.72	874	6.35	929	7.00	<b>982</b>	<b>7.67</b>	<b>1035</b>	<b>8.42</b>	<b>1086</b>	<b>9.19</b>	<b>1136</b>	<b>10.02</b>		
8280	3600	691	4.86	724	5.21	787	5.90	845	6.56	900	7.23	<b>952</b>	<b>7.88</b>	<b>1004</b>	<b>8.60</b>	<b>1054</b>	<b>9.33</b>	<b>1103</b>	<b>10.10</b>				
8740	3800	725	5.66	758	6.06	818	6.78	874	7.49	<b>926</b>	<b>8.16</b>	<b>977</b>	<b>8.87</b>	<b>1026</b>	<b>9.59</b>	<b>1074</b>	<b>10.33</b>	<b>1122</b>	<b>11.14</b>				

MAXIMUM RPM: Class I — 955    Class II — 1146

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.  
 Power rating (bhp) does not include belt drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown in regular face type.  
 Class II fans are shown in bold face type.  
 Underlined figures indicate maximum static efficiencies.

# Performance Data – FCUB

## 22 FCUB

Outlet Area - 2.85 ft<sup>2</sup>      Wheel Dia. - 22.25 Inches      Tip Speed - 5.83 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2280	800	241	0.16																				
2850	1000	257	0.24	333	0.39																		
3420	1200	278	0.35	345	0.50	<u>465</u>	<u>0.89</u>																
3990	1400	302	0.50	362	0.66	470	1.07																
4560	1600	327	0.68	382	0.86	481	1.30	572	1.81														
5130	1800	354	0.91	405	1.12	496	1.57	580	2.11	659	2.70												
5700	2000	382	1.20	429	1.43	513	1.90	592	2.46	666	3.09	736	3.73										
6270	2200	410	1.54	455	1.80	533	2.30	607	2.87	677	3.53	743	4.22	807	4.94								
6840	2400	439	1.94	481	2.23	555	2.77	624	3.35	690	4.02	753	4.76	814	5.53	<b>872</b>	<b>6.30</b>	<u>929</u>	<u>7.12</u>				
7410	2600	469	2.43	508	2.73	579	3.33	644	3.94	706	4.60	766	5.35	823	6.15	<b>879</b>	<b>6.98</b>	<b>934</b>	<b>7.84</b>	<u>986</u>	<u>8.69</u>		
7980	2800	499	2.98	536	3.31	603	3.95	665	4.60	724	5.28	780	6.01	835	6.84	<b>889</b>	<b>7.73</b>	<b>941</b>	<b>8.62</b>	<b>991</b>	<b>9.51</b>		
8550	3000	529	3.60	564	3.96	629	4.67	687	5.33	743	6.05	797	6.80	850	7.64	<b>901</b>	<b>8.53</b>	<b>951</b>	<b>9.48</b>	<b>999</b>	<b>10.42</b>		
9120	3200	560	4.33	593	4.71	655	5.47	711	6.19	764	6.92	815	7.68	<b>866</b>	<b>8.53</b>	<b>915</b>	<b>9.43</b>	<b>963</b>	<b>10.40</b>	<b>1009</b>	<b>11.38</b>		
9690	3400	591	5.14	622	5.53	681	6.34	735	7.11	786	7.88	835	8.68	<b>883</b>	<b>9.52</b>	<b>930</b>	<b>10.41</b>	<b>976</b>	<b>11.38</b>	<b>1021</b>	<b>12.41</b>		
10260	3600	622	6.05	652	6.48	708	7.32	760	8.14	809	8.95	856	9.78	<b>903</b>	<b>10.67</b>	<b>948</b>	<b>11.58</b>	<b>992</b>	<b>12.54</b>				
10830	3800	653	7.05	682	7.52	736	8.42	786	9.29	<b>833</b>	<b>10.13</b>	<b>878</b>	<b>10.98</b>	<b>923</b>	<b>11.91</b>	<b>966</b>	<b>12.82</b>	<b>1009</b>	<b>13.81</b>				

MAXIMUM RPM: Class I — 858      Class II — 1030

## 24 FCUB

Outlet Area - 3.45 ft<sup>2</sup>      Wheel Dia. - 24.50 Inches      Tip Speed - 6.41 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	218	0.20																				
3450	1000	233	0.29	302	0.47																		
4140	1200	252	0.42	313	0.61	<u>422</u>	<u>1.08</u>																
4830	1400	274	0.60	328	0.79	427	1.30																
5520	1600	297	0.82	347	1.05	437	1.57	519	2.19														
6210	1800	321	1.10	367	1.35	450	1.89	527	2.56	598	3.26												
6900	2000	346	1.45	389	1.72	466	2.30	538	2.98	605	3.74	669	4.53										
7590	2200	372	1.86	413	2.18	484	2.78	551	3.47	614	4.26	675	5.11	733	5.99								
8280	2400	399	2.36	436	2.69	504	3.36	567	4.07	626	4.85	684	5.76	739	6.69	<b>792</b>	<b>7.63</b>	<b>844</b>	<b>8.62</b>				
8970	2600	425	2.92	461	3.30	525	4.01	584	4.75	641	5.57	695	6.46	748	7.46	<b>798</b>	<b>8.44</b>	<b>848</b>	<b>9.49</b>	<u>896</u>	<u>10.54</u>		
9660	2800	452	3.58	486	3.99	547	4.76	603	5.54	657	6.38	708	7.27	758	8.27	<b>807</b>	<b>9.35</b>	<b>854</b>	<b>10.42</b>	<b>900</b>	<b>11.51</b>		
10350	3000	480	4.35	512	4.79	570	5.62	623	6.43	674	7.30	724	8.24	771	9.21	<b>818</b>	<b>10.32</b>	<b>863</b>	<b>11.46</b>	<b>907</b>	<b>12.60</b>		
11040	3200	508	5.23	538	5.69	594	6.59	645	7.47	693	8.35	740	9.29	<b>786</b>	<b>10.31</b>	<b>830</b>	<b>11.38</b>	<b>874</b>	<b>12.57</b>	<b>916</b>	<b>13.77</b>		
11730	3400	536	6.20	564	6.68	618	7.66	667	8.59	713	9.51	<b>758</b>	<b>10.49</b>	<b>802</b>	<b>11.53</b>	<b>845</b>	<b>12.63</b>	<b>886</b>	<b>13.77</b>	<b>927</b>	<b>15.02</b>		
12420	3600	564	7.29	591	7.81	642	8.83	690	9.85	<b>734</b>	<b>10.81</b>	<b>777</b>	<b>11.82</b>	<b>819</b>	<b>12.87</b>	<b>860</b>	<b>13.98</b>	<b>900</b>	<b>15.13</b>				
13110	3800	592	8.50	618	9.06	<b>667</b>	<b>10.14</b>	<b>713</b>	<b>11.21</b>	<b>756</b>	<b>12.25</b>	<b>797</b>	<b>13.28</b>	<b>838</b>	<b>14.41</b>	<b>877</b>	<b>15.51</b>	<b>916</b>	<b>16.71</b>				

MAXIMUM RPM: Class I — 780      Class II — 935

## 27 FCUB

Outlet Area - 4.19 ft<sup>2</sup>      Wheel Dia. - 27.00 Inches      Tip Speed - 7.07 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3352	800	191	0.23																				
4190	1000	203	0.33	265	0.54																		
5028	1200	219	0.47	273	0.70																		
5866	1400	237	0.66	286	0.91	375	1.51																
6704	1600	257	0.90	301	1.18	382	1.81	456	2.52														
7542	1800	278	1.20	318	1.50	392	2.17	462	2.96	525	3.75												
8380	2000	301	1.59	337	1.91	406	2.63	470	3.44	531	4.32	587	5.21										
9218	2200	324	2.04	357	2.38	421	3.16	480	3.98	538	4.93	593	5.92	643	6.87								
10056	2400	347	2.57	378	2.95	438	3.78	493	4.64	547	5.61	599	6.65	649	7.73	695	8.77						
10894	2600	371	3.21	400	3.61	455	4.46	508	5.40	558	6.38	607	7.45	655	8.60	701	9.77	<b>744</b>	<b>10.91</b>				
11732	2800	395	3.94	422	4.36	474	5.27	525	6.30	572	7.31	617	8.35	663	9.56	<b>707</b>	<b>10.78</b>	<b>750</b>	<b>12.05</b>	<b>790</b>	<b>13.27</b>	<b>830</b>	<b>14.56</b>
12570	3000	419	4.77	445	5.24	493	6.16	541	7.22	587	8.33	630	9.43	<b>673</b>	<b>10.63</b>	<b>715</b>	<b>11.90</b>	<b>756</b>	<b>13.21</b>	<b>796</b>	<b>14.55</b>	<b>834</b>	<b>15.87</b>
13408	3200	444	5.74	468	6.21	514	7.21	559	8.30	603	9.47	<b>644</b>	<b>10.61</b>	<b>684</b>	<b>11.80</b>	<b>724</b>	<b>13.09</b>	<b>764</b>	<b>14.49</b>	<b>803</b>	<b>15.92</b>	<b>841</b>	<b>17.37</b>
14246	3400	469	6.83	492	7.34	535	8.36	577	9.46	<b>620</b>	<b>10.74</b>	<b>660</b>	<b>11.97</b>	<b>698</b>	<b>13.19</b>	<b>736</b>	<b>14.50</b>	<b>773</b>	<b>15.85</b>	<b>810</b>	<b>17.29</b>	<b>847</b>	<b>18.82</b>
15084	3600	494	8.04	515	8.54	557	9.67	<b>596</b>	<b>10.77</b>	<b>637</b>	<b>12.09</b>	<b>676</b>	<b>13.41</b>	<b>713</b>	<b>14.71</b>	<b>749</b>	<b>16.03</b>	<b>784</b>	<b>17.38</b>	<b>820</b>	<b>18.89</b>		
15922	3800	519	9.39	539	9.92	<b>579</b>	<b>11.10</b>	<b>617</b>	<b>12.29</b>	<b>655</b>	<b>13.58</b>	<b>693</b>	<b>14.99</b>	<b>729</b>	<b>16.37</b>	<b>763</b>	<b>17.70</b>	<b>797</b>	<b>19.12</b>	<b>831</b>	<b>20.61</b>		

MAXIMUM RPM: Class I — 707      Class II — 849

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.  
 Power rating (bhp) does not include belt drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown in regular face type.  
 Class II fans are shown in **bold** face type.  
Underlined figures indicate maximum static efficiencies.

# Performance Data – FCUB

## 30 FCUB

Outlet Area - 5.17 ft<sup>2</sup>      Wheel Dia. - 30.00 Inches      Tip Speed - 7.85 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4136	800	172	0.28																				
5170	1000	183	0.41	239	0.67																		
6204	1200	197	0.58	246	0.86																		
7238	1400	213	0.81	257	1.12	337	1.85																
8272	1600	231	1.11	271	1.46	344	2.24	410	3.11														
9306	1800	250	1.48	286	1.85	353	2.69	416	3.65	473	4.64												
10340	2000	271	1.96	303	2.34	365	3.24	423	4.24	478	5.33	528	6.41										
11374	2200	291	2.51	321	2.93	379	3.90	432	4.91	484	6.07	533	7.27	579	8.49								
12408	2400	312	3.17	340	3.63	394	4.66	444	5.74	492	6.91	539	8.20	584	9.53	626	10.85						
13442	2600	334	3.97	359	4.42	410	5.53	457	6.66	502	7.87	546	9.18	589	10.58	631	12.06	670	13.48				
14476	2800	355	4.84	380	5.39	426	6.48	472	7.75	514	8.98	556	10.35	596	11.75	636	13.29	675	14.87	711	16.37	747	17.96
15510	3000	377	5.88	400	6.44	444	7.62	487	8.92	528	10.27	567	11.64	605	13.07	643	14.65	681	16.35	717	18.00	751	19.62
16544	3200	399	7.05	421	7.66	462	8.87	503	10.24	543	11.71	580	13.12	616	14.59	652	16.18	687	17.83	722	19.59	757	21.44
17578	3400	422	8.42	442	9.01	481	10.29	519	11.66	557	13.18	594	14.77	628	16.26	662	17.86	696	19.58	729	21.34	762	23.20
18612	3600	444	9.89	464	10.58	501	11.91	537	13.33	573	14.89	608	16.51	642	18.17	674	19.78	706	21.49	738	23.31		
19646	3800	467	11.58	485	12.24	521	13.69	555	15.14	589	16.72	623	18.44	656	20.19	687	21.87	717	23.56	748	25.45		

MAXIMUM RPM: Class I — 637      Class II — 764

## 33 FCUB

Outlet Area - 6.26 ft<sup>2</sup>      Wheel Dia. - 33.00 Inches      Tip Speed - 8.64 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	800	156	0.34																				
6260	1000	166	0.49	217	0.80																		
7512	1200	179	0.70	224	1.05																		
8764	1400	194	0.99	234	1.36	307	2.25																
10016	1600	210	1.34	247	1.78	312	2.69	373	3.77														
11268	1800	228	1.81	261	2.27	321	3.25	378	4.42	430	5.62												
12520	2000	246	2.36	276	2.86	332	3.93	384	5.11	434	6.43	480	7.76										
13772	2200	265	3.05	292	3.56	345	4.74	393	5.96	440	7.35	485	8.83	526	10.26								
15024	2400	284	3.85	309	4.39	358	5.63	404	6.97	447	8.35	490	9.93	531	11.54	569	13.13						
16276	2600	304	4.82	327	5.38	372	6.65	416	8.10	457	9.56	497	11.15	536	12.85	574	14.63	609	16.32				
17528	2800	323	5.88	345	6.50	387	7.83	429	9.37	468	10.92	505	12.49	542	14.24	579	16.16	614	18.03	647	19.88	679	21.74
18780	3000	343	7.13	364	7.81	403	9.18	443	10.82	480	12.43	515	14.05	550	15.83	585	17.78	619	19.78	652	21.81	683	23.78
20032	3200	363	8.55	383	9.29	420	10.73	457	12.37	493	14.12	527	15.86	560	17.67	593	19.62	625	21.63	657	23.78	688	25.94
21284	3400	384	10.22	402	10.92	438	12.52	472	14.13	507	16.02	540	17.88	571	19.69	602	21.64	633	23.74	663	25.87	693	28.12
22536	3600	404	12.00	422	12.82	455	14.38	488	16.12	521	18.04	553	20.02	583	21.93	613	23.98	642	26.03	671	28.23		
23788	3800	425	14.06	441	14.82	474	16.60	505	18.38	536	20.30	567	22.40	596	24.40	625	26.54	652	28.55	680	30.81		

MAXIMUM RPM: Class I — 579      Class II — 694

## 36 FCUB

Outlet Area - 7.66 ft<sup>2</sup>      Wheel Dia. - 36.50 Inches      Tip Speed - 9.56 x RPM

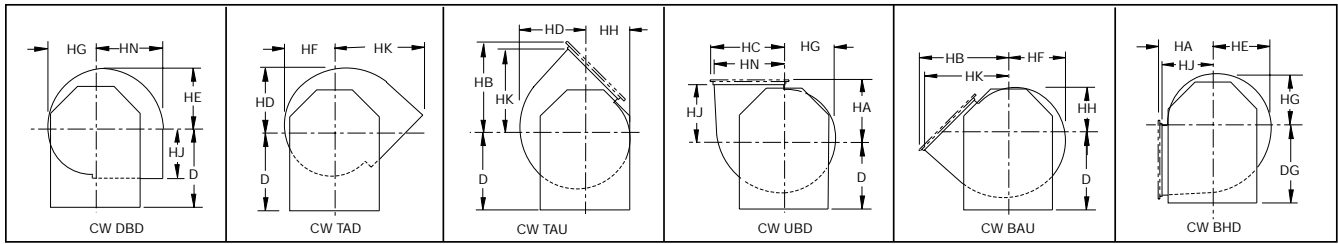
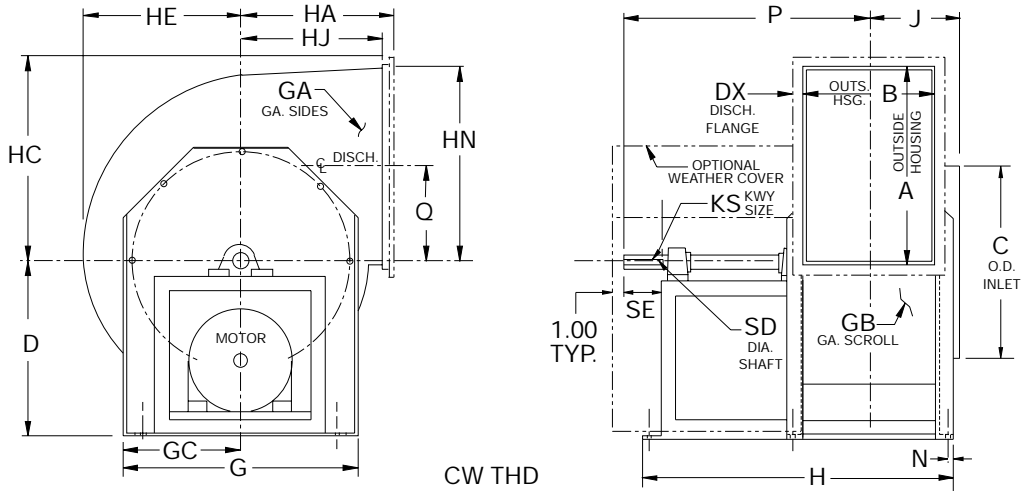
CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	141	0.41																				
7660	1000	150	0.60	196	0.98																		
9192	1200	162	0.86	202	1.28																		
10724	1400	175	1.20	211	1.66	277	2.74																
12256	1600	190	1.65	223	2.16	283	3.33	337	4.60														
13788	1800	206	2.21	236	2.78	290	3.97	342	5.42	389	6.89												
15320	2000	223	2.92	249	3.47	300	4.80	347	6.25	393	7.91	434	9.50										
16852	2200	240	3.75	264	4.35	312	5.81	355	7.28	398	9.01	438	10.77	476	12.59								
18384	2400	257	4.72	279	5.35	324	6.91	365	8.51	404	10.20	443	12.14	480	14.12	514	16.02						
19916	2600	275	5.90	296	6.61	337	8.19	376	9.90	413	11.69	449	13.62	484	15.67	519	17.90	550	19.91				
21448	2800	292	7.19	312	7.96	350	9.58	388	11.48	423	13.35	457	15.33	490	17.42	523	19.71	555	22.05	585	24.33	614	26.62
22980	3000	310	8.72	329	9.55	365	11.29	400	13.18	434	15.21	466	17.24	498	19.46	529	21.76	559	24.12	589	26.63	617	29.03
24512	3200	329	10.54	346	11.33	380	13.16	413	15.12	446	17.31	477	19.48	506	21.58	536	23.99	565	26.46	594	29.10	622	31.73
26044	3400	347	12.48	364	13.42	396	15.32	427	17.32	458	19.55	488	21.85	516	24.06	544	26.44	572	29.00	600	31.74	627	34.49
27576	3600	365	14.65	381	15.62	412	17.67	441	19.70	471	22.06	500	24.50	527	26.82	554	29.30	580	31.78	606	34.43		
29108	3800	384	17.17	399	18.17	428	20.24	456	22.40	484	24.75	512	27.30	539	29.88	565	32.46	590	35.02	615	37.73		

MAXIMUM RPM: Class I — 523      Class II — 628

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.  
 Power rating (bhp) does not include belt drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown in regular face type.  
 Class II fans are shown in bold face type.  
 Underlined figures indicate maximum static efficiencies.

# Dimensional Data



**NOTES:**

1. FLANGED OUTLET IS OPTIONAL ON SIZES 12-20. FLANGED OUTLET IS STANDARD ON SIZES 22-36 (EXCEPT ON TAD & DBD).
2. "CW" ROTATION IS SHOWN. "CCW" ROTATION IS SIMILAR BUT OPPOSITE.
- \*3. SHAFT DIAMETER IS INCREASED TO 1.187 ON HI-TEMP FANS WHICH REQUIRE SHAFT COOLERS.
4. ALL UNITS ARE ROTATABLE TO ALL POSITIONS (EXCEPT SIZES 30-36 WITH "D" CENTERLINE HEIGHT ARE NOT ROTATABLE TO BHD).

SIZE	A	B	C	D		DG		DX	G	GA	GB	GC	H		HA	HB	HC	HD	HE	HF
				CL I	CL II	CL I	CL II						CL I	CL II						
12	13.00	9.75	13.25	14.50	17.63	14.50	17.63	1.00	16.00	14	14	8.00	24.50	32.00	9.75	16.75	13.94	11.19	10.56	9.94
13	14.31	10.81	14.56	15.75	19.13	15.75	19.13	1.00	17.50	14	14	8.75	25.63	34.81	10.75	18.38	15.25	12.31	11.63	10.94
15	15.88	11.94	16.19	17.75	19.38	17.75	19.38	1.00	19.00	14	14	9.50	28.75	36.00	11.94	20.31	16.81	13.75	12.88	12.13
16	17.44	13.19	17.75	19.00	19.38	19.00	19.38	1.00	20.50	14	14	10.25	30.13	37.31	13.13	22.25	18.38	15.06	14.13	13.31
18	19.38	14.56	19.50	21.00	21.88	21.00	21.88	1.25	22.50	12	14	11.25	34.38	43.44	14.50	24.81	20.56	16.69	15.69	14.75
20	21.19	15.94	21.38	22.75	22.75	22.75	22.75	1.25	25.00	12	14	12.50	35.75	44.81	15.81	27.00	22.38	18.38	17.31	16.25
22	23.56	17.69	23.75	25.50	25.50	25.50	25.50	1.25	27.25	12	14	13.63	40.75	47.13	17.69	30.00	24.75	20.44	19.06	17.94
24	25.94	19.44	26.06	28.00	28.00	28.00	28.00	1.25	29.75	12	14	14.88	43.50	48.81	19.50	33.00	27.13	22.38	21.00	19.75
27	28.63	21.38	28.50	30.50	30.50	30.50	30.50	1.50	33.00	12	14	16.50	47.38	53.00	21.44	36.44	30.06	24.69	23.19	21.81
30	31.81	23.81	31.63	27.50	27.50	34.25	34.25	1.50	36.13	10	12	18.06	52.88	56.00	23.81	40.31	33.25	27.44	25.75	24.25
33	35.13	26.06	34.75	30.00	30.00	37.25	37.25	1.50	38.88	10	12	19.44	56.13	61.75	26.25	44.44	36.56	30.13	28.38	26.69
36	38.75	28.88	38.50	33.50	33.50	41.00	41.00	1.50	43.75	10	12	21.88	64.56	64.56	29.00	48.88	40.13	33.50	31.50	29.63

SIZE	HG	HH	HJ	HK	HN	J	KS		L		N	P		Q	SD		SE		MAX. MTR.	
							CL I	CL II	CL	CL II		CL I	CL II		CL I	CL II	CL I	CL II		
12	9.31	8.69	9.25	15.69	12.94	7.44	25x.13	25x.13	12.00	18.50	0.50	19.75	26.50	6.44	1.000	1.187	2.75	2.75	145T	184T
13	10.25	9.56	10.25	17.31	14.25	8.00	25x.13	25x.13	12.00	20.25	0.50	20.31	29.56	7.13	1.000	1.187	2.75	3.38	145T	215T
15	11.38	10.63	11.44	19.25	15.81	9.06	25x.13	25x.13	13.88	20.25	0.50	23.13	30.13	7.88	1.000	1.187	3.25	3.38	184T	215T
16	12.50	11.69	12.63	21.19	17.38	9.69	25x.13	25x.13	13.88	20.00	0.63	23.75	30.75	8.69	1.000*	1.187	3.25	3.38	184T	215T
18	13.81	12.88	14.00	23.56	19.31	10.88	25x.13	38x.19	16.75	24.75	0.63	27.94	36.81	9.63	1.187	1.437	3.75	4.00	215T	256T
20	15.19	14.13	15.31	25.75	21.13	11.56	38x.19	38x.19	16.75	24.63	0.63	28.63	37.50	10.56	1.437	1.437	3.75	4.00	215T	256T
22	16.81	15.69	17.19	28.75	23.50	12.44	38x.19	38x.19	19.00	23.88	0.88	27.63	38.38	11.75	1.437	1.437	3.75	4.00	215T	256T
24	18.50	17.25	19.00	31.75	25.88	13.31	38x.19	38x.19	20.00	23.88	0.88	29.00	39.25	12.94	1.437	1.687	3.75	4.00	215T	256T
27	20.44	19.06	20.94	35.00	28.56	14.25	38x.19	38x.19	22.00	26.13	0.88	31.69	43.13	14.25	1.437	1.687	4.00	4.63	215T	286T
30	22.75	21.25	23.31	38.94	31.75	15.50	50x.25	50x.25	24.00	25.38	1.13	40.38	44.44	15.81	1.937	1.937	3.75	4.63	215T	286T
33	25.00	23.31	25.75	43.00	35.06	16.63	50x.25	50x.25	25.00	28.88	1.13	42.50	49.69	17.50	1.937	2.187	3.75	5.25	256T	326T
36	27.75	25.88	28.50	47.44	39.63	18.00	50x.25	63x.31	28.88	28.88	1.13	50.56	51.06	19.25	1.937	2.437	4.75	5.25	286T	326T

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.

# Typical Specifications

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Fans shall be Type BIUB Backward Inclined or Type FCUB Forward Curved Ventilating Sets, as manufactured by Aerovent, Minneapolis, Minnesota.

**PERFORMANCE** — Fans shall be tested in accordance with AMCA 211 and AMCA 311 test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. BIUB fans shall be licensed to bear the AMCA certified ratings seal for both sound and air. FCUB fans shall be licensed to bear the AMCA certified ratings seal for air.

**HOUSING** — Fan housings shall be heavy gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Housings shall have tapered spun, aerodynamically designed inlet cones or shrouds providing stable flow and high rigidity. Housings shall be of the rotatable design, convertible to eight standard discharge configurations.

**WHEELS** — BIUB backward inclined wheels shall be single thickness plate type designed for maximum efficiency and quiet operation and shall be of the non-overloading type. Class I wheels, sizes 12 through 27, shall be constructed of aluminum, with blades riveted and welded to the spun wheel cone and backplate. Class I wheels, sizes 30 through 36, and all Class II wheels shall be constructed of heavy gauge steel with welded (not riveted) blades.

FCUB forward curved wheels shall be constructed of heavy gauge steel and solidly riveted to a steel shroud and backplate.

All wheels shall be statically and dynamically balanced.

**SHAFT** — Shafts shall be AISI 1040 or 1045 hot rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

**BEARINGS** — Bearings shall be heavy duty, grease lubricated, anti-friction ball, self-aligning, pillow block type and selected for a minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

**DRIVE** — Motor sheaves shall be cast iron, and supplied as either variable pitch or fixed pitch. Drives and belts shall be rated for a minimum of 120% of the required motor HP.

**FINISH AND COATING** — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

**ACCESSORIES** — When specified, accessories such as belt guards, weather covers, access doors, variable inlet vanes, outlet shutters, inlet screens, etc., shall be provided by Aerovent to maintain one source responsibility.

**UL 705 LISTING** — BIUBU5 fans shall be listed under UL 705 for power ventilators. BIUBU5 fans shall include a UL listed motor, V-belt drive, special weather cover with additional cooling louvers, and UL 705 label. Disconnect switches or other electrical devices (not including motor) shall be field mounted and wired in accordance with all local and national codes.

**UL 762 LISTING** — BIUBU2 fans shall be listed under UL 762 for power ventilators used in restaurant exhaust service (grease laden air). BIUBU2 fans shall include a UL listed motor, V-belt drive, special weather cover with additional cooling louvers, bolted access door, drain connection, wheel backplate fins, and UL 762 label. BIUBU2 fans shall be upblast or top angular up discharge and shall have a discharge height of at least 40" above the roof line. They are to be installed in accordance with NFPA 96. Disconnect switches or other electrical devices (not including motor) shall be field mounted and wired in accordance with all local and national codes.

**FACTORY RUN TEST** — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for at least one (1) year from start-up or eighteen (18) months from shipment, whichever occurs first.