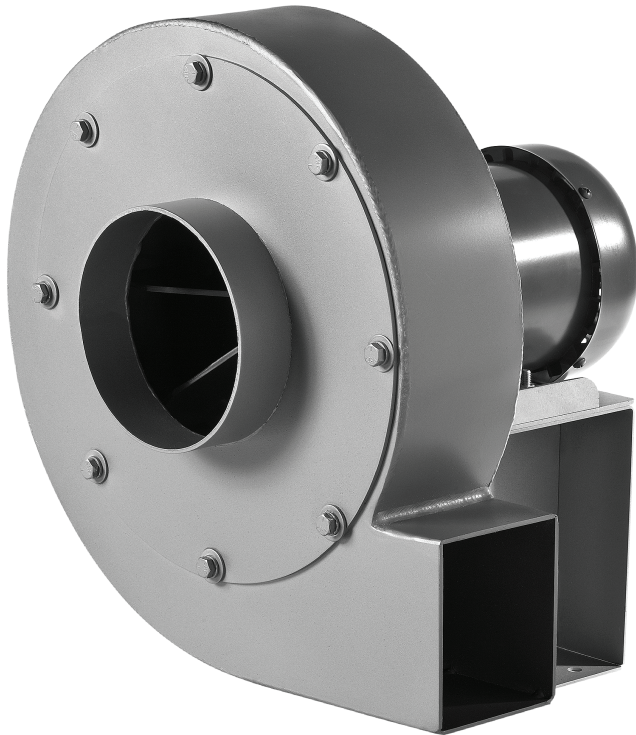




**cincinnati  
fan**

**OEM and Industrial Air Handling Specialist**



**PBS  
SERIES  
FABRICATED  
STEEL  
PRESSURE  
BLOWERS**

**7697 Snider Road, Mason, OH 45040-9135**

**Telephone: 513-573-0600**

Visit us at [www.cincinnati-fan.com](http://www.cincinnati-fan.com) for more information.

**Cat. No. PBS-1111**



# Cincinnati fan

## A Company That Stands Behind Its Product

Since the founding of **Cincinnati Fan** in 1956, the company's mission has been to provide quality products at competitive prices, backed by dependable 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** has over 170 experienced sales engineers across the U.S. and Canada ready to serve your air handling needs.

**Cincinnati Fan** can provide:

- 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.

**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 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.

Visit us at [www.cincinnati-fan.com](http://www.cincinnati-fan.com) for more information.

### SPECIFICATIONS FOR PBS SERIES

Fabricated mild steel pressure blower shall be Cincinnati Fan **PBS** Series, Model \_\_\_\_\_, Arrangement \_\_\_\_\_, Capacity: \_\_\_\_\_ CFM: \_\_\_\_\_, Static Pressure: \_\_\_\_\_ inches W.G. at standard conditions. Operating conditions: \_\_\_\_\_ °F, Temperature, \_\_\_\_\_ Feet. Altitude.

All fan performance shall have been tested per AMCA Standard 210. Fan motor and bearing vibration levels shall not exceed 1.5 mils displacement at 3450 RPM. Wheels up to 13" diameter shall be statically balanced. Wheels over 13" diameter shall be dynamically balanced.

All blower housings shall be continuously welded. Housing, wheel and base gauges shall be as shown on page 14. Fan bearings shall be heavy duty, grease lubricated, self aligning ball bearings mounted in cast iron pillow blocks. V-belt drives shall be selected for a minimum of 1.3 times nominal horsepower.

Before painting, steel parts shall be cleaned by detergent wash, phosphatized and painted with oven cured gray enamel. All arrangement 1, 8 and 9 fan shafts shall receive a rust preventative coating prior to shipment. Shafts shall be turned, ground and polished steel (or stainless steel).

All parts in contact with the airstream shall be standard mild steel or stainless steel as specified. For AMCA Type A or B spark resistant construction, see the **PB Series, Cast Aluminum Pressure Blower** catalog.

## 6 STANDARD ARRANGEMENTS



**Arrangement 4**  
(Foot mounted motor)  
Shown with optional damper.



**Arrangement 4HM**  
(Horizontal mount)  
(See pages 14 and 16)



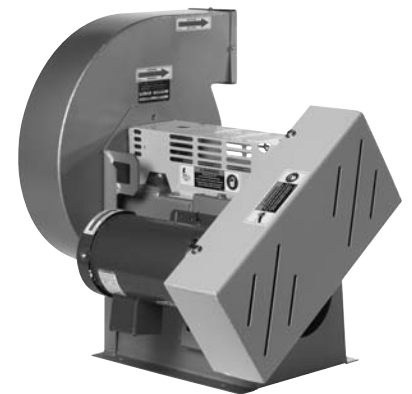
**Arrangement 1**



**Arrangement 2**  
Shown with optional  
discharge flange.



**Arrangement 8**



**Arrangement 9**  
Shown with optional discharge  
guard.

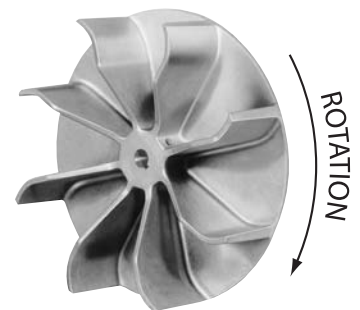
## BLOWER WHEELS



**STANDARD  
FABRICATED STEEL**  
(Not available in B.C.)



**OPTIONAL  
CAST ALUMINUM RADIAL**



**OPTIONAL  
CAST ALUMINUM B.C.**  
(Backward Curve)

Steel wheels are standard. Stainless steel or cast aluminum are optional. All mild steel wheels have a taper-lock hub and bushing. All stainless steel and cast aluminum wheels have a straight bore with two set screws, 90°-120° apart, with one over the keyway. Wheel diameters 13" or less are statically balanced. Wheels over 13" diameter are dynamically balanced. Stainless steel or coated wheels should be used in corrosive environments.

# OPTIONAL ACCESSORIES



### Inlet Flange

All flanges are 10 gauge steel drilled to ANSI-125 pound bolt circle dimensions if requested. **See page 19 for dimensions and notes.**



### Discharge Flange

Discharge flange can be round or rectangular. On round flanges, drilling can be per CFV standard or ANSI-125 pound drilled. Flange not available on some discharge positions. All flanges are 10 gauge steel. If ordered with inlet flange, O.D. of round discharge flange will extend past face of inlet flange. **See page 19 for dimensions.**



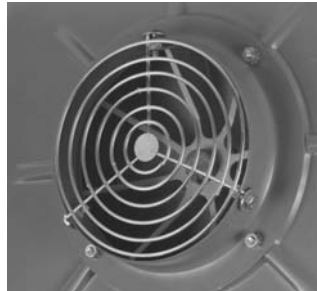
### Drain

1/2" pipe coupling with plug, welded to lowest point of housing. Not required on BH discharge position.



### Inlet Filter

Many layered fine wire mesh for 50% efficiency @ 100 micron. Pleated paper media available for efficiencies down to 1 micron. Filter weather hoods are also available.



### Inlet Guard

Inlet guard is spiral with nickel/chrome/lacquer finish. Discharge guard is expanded metal. Both meet OSHA regulations. **Guards are required by OSHA on any unducted inlet or discharge.**



### Discharge Guard



### Teflon Shaft Seal

1/8" thick teflon shaft seal good to 400°F. Ceramic fiber gasket with steel cover plate for above 400°F.



### Belt Guard –

#### Standard on arrangement 9

Bearing side is enclosed. Not available unless Cincinnati Fan mounts the motor. **Painted safety yellow.**



### Inlet Slide Gate

Inlet damper is cast aluminum with galvanized gate. Discharge damper is fabricated steel with galvanized gate. **If not ducted, guard is required by OSHA.**



### Discharge Slide Gate



### Shaft and/or Heat Slinger Guard

Available on arrangements 1 and 9. Covers bearings and shaft between housing and belt guard. Has extended lube lines. Standard on arrangement 8. Meets OSHA standards. **Painted safety yellow.**

# SPARK-RESISTANT CONSTRUCTION

**AMCA Type A:** All parts in contact with airstream are of nonferrous material (See **Model PB Cast Aluminum Blower** catalog).

**AMCA Type B:** Add cast aluminum wheel and aluminum rubbing ring for motor or fan shaft.

**Maximum temperature up to 400°F. except if with EXP motor, maximum temperature is 150°F.**

## 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 construction 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

## Arrangements 2, 4 and 4HM

**Up To 200°F: Standard fan construction.** Steel or cast aluminum wheels are available. **No BC type steel wheels.**

**201° - 400°F:** Standard fan with heat slinger and slinger guard. External hub on wheel or a shaft extension may be required (except on arrangement 2). Includes steel or high temperature cast aluminum wheel. **No BC type steel wheels.**

## Arrangements 1, 8 and 9

**Up To 300°F: Standard fan construction. No BC type steel wheels.**

**301° - 400°F:** Standard fan with heat slinger and slinger guard. Includes steel or high temperature cast aluminum wheel. **No BC type steel wheels.**

**401° - 600°F:** Standard fan with steel wheel, heat slinger, slinger guard, high temperature shaft seal, high temperature aluminum paint and silicone gasketing. **No cast aluminum wheels and no BC type steel wheels.**

**601° - 750°F:** Standard fan with steel wheel, heat slinger, slinger guard, high temperature shaft seal, high temperature aluminum paint, silicone gasketing and 316SS fan shaft. **No cast aluminum wheels and no BC type steel wheels.**

# TEMPERATURE - ALTITUDE CONVERSIONS

## TEMPERATURE - ALTITUDE CONVERSIONS

AIR TEMP. F°	ALTITUDE IN FEET ABOVE SEA LEVEL										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
0°	.87	.91	.94	.98	1.01	1.05	1.09	1.13	1.17	1.22	1.26
40°	.94	.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 lbs. per cubic foot. Density changes resulting from temperature and barometric pressure variations (such as high 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 **PBS** blower to deliver 800 CFM at 3"SP at 500° F., and 7000 feet altitude.

**STEP 1:** From the table, the conversion factor is 2.36."

**STEP 2:** Correct static pressure is:  $2.36 \times 3"SP = 7.08"SP$  at standard conditions. Use 7" SP.

**STEP 3:** Check the belt drive tables on pages 8 & 9 for 800 CFM at 7" SP. We select a model **PBS-12A** at 3378 RPM and 1.74 BHP.

**STEP 4:** Correct the BHP for the lighter air:  $1.74 BHP \div 2.36 = .74 BHP$ . A 1 HP motor will suffice at 500° and 7000', but a 2 HP motor would be required at standard conditions. Special motor insulation may be required above 3500 feet altitude. Consult your local Cincinnati Fan sales representative.



# PBS SERIES DIRECT DRIVE RATING TABLES at 3450 RPM

CFM and BHP at Static Pressure Shown

Ratings at 70°F., .075 Density, Sea Level

MODEL NO.	NOMINAL WHEEL DIA & WIDTH	NOMINAL INLET DIA.	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
PBS-9	8 x 2 <sup>3</sup> / <sub>4</sub>	5"	388	.39	341	.36	285	.32	156	.25									
	8 <sup>1</sup> / <sub>2</sub> x 2 <sup>3</sup> / <sub>4</sub>	5"	435	.46	385	.41	324	.37	243	.33									
	9 x 2 <sup>7</sup> / <sub>8</sub>	5"	493	.52	445	.48	384	.42	310	.37	196	.31							
	9 <sup>3</sup> / <sub>4</sub> x 2 <sup>7</sup> / <sub>8</sub>	5"	549	.81	501	.76	449	.71	395	.66	335	.60	258	.51					
PBS-10A	9 x 2 <sup>7</sup> / <sub>8</sub>	6"	576	.70	510	.65	425	.58	325	.50	163	.37							
	10 <sup>1</sup> / <sub>4</sub> x 3 BC ●	6"	605	.79	547	.72	479	.66	399	.60	299	.53	149	.43					
	9 <sup>3</sup> / <sub>4</sub> x 2 <sup>7</sup> / <sub>8</sub>	6"	710	1.02	658	.96	594	.89	517	.82	428	.72	314	.59	109	.42			
	11 x 3 BC ●	6"	729	1.06	687	1.01	638	.95	580	.88	511	.81	425	.71	306	.59			
	10 <sup>5</sup> / <sub>8</sub> x 2 <sup>5</sup> / <sub>8</sub>	6"	826	1.39	763	1.30	699	1.23	632	1.15	559	1.06	476	.96	361	.83			
	11 x 2 <sup>3</sup> / <sub>4</sub>	6"	830	1.42	780	1.33	727	1.23	670	1.15	607	1.06	537	.97	450	.87	307	.70	
	11 <sup>1</sup> / <sub>2</sub> x 2 <sup>7</sup> / <sub>8</sub>	6"	884	1.52	836	1.45	780	1.38	718	1.30	652	1.22	582	1.14	506	1.04	414	.92	
PBS-12A	11 x 3 BC ●	7"	877	1.10	807	1.04	729	.96	642	.88	543	.79	419	.69	181	.51			
	10 <sup>5</sup> / <sub>8</sub> x 2 <sup>5</sup> / <sub>8</sub>	7"	1062	1.62	989	1.53	899	1.42	795	1.29	681	1.15	553	.99	378	.78			
	11 x 2 <sup>3</sup> / <sub>4</sub>	7"	1155	2.00	1068	1.85	974	1.71	873	1.56	762	1.40	636	1.23	487	1.04	281	.78	
	11 <sup>1</sup> / <sub>2</sub> x 2 <sup>7</sup> / <sub>8</sub>	7"	1266	2.39	1183	2.28	1092	2.14	997	2.00	900	1.85	798	1.69	686	1.51	547	1.30	
	12 x 2 <sup>7</sup> / <sub>8</sub>	7"	1307	2.61	1225	2.46	1139	2.30	1052	2.15	965	2.00	876	1.86	784	1.72	681	1.56	
	13 x 3 <sup>1</sup> / <sub>4</sub> BC ●	7"	1297	2.61	1233	2.51	1164	2.40	1093	2.29	1021	2.17	947	2.06	871	1.96	791	1.84	
	12 <sup>1</sup> / <sub>4</sub> x 2 <sup>7</sup> / <sub>8</sub>	7"	1363	2.92	1287	2.76	1202	2.58	1114	2.40	1025	2.22	936	2.06	845	1.90	748	1.74	
	13 x 3 <sup>1</sup> / <sub>4</sub>	7"	1464	3.24	1388	3.08	1306	2.92	1222	2.77	1139	2.61	1058	2.47	978	2.32	897	2.17	
PBS-14A	13 x 3 <sup>1</sup> / <sub>4</sub> BC ●	6"	1317	2.50	1253	2.40	1185	2.31	1114	2.21	1036	2.09	952	1.97	858	1.82	748	1.65	
	13 x 3 <sup>1</sup> / <sub>4</sub> BC ●	7"	1360	2.51	1284	2.39	1210	2.28	1134	2.17	1054	2.07	968	1.96	872	1.83	759	1.68	
	13 x 3 <sup>1</sup> / <sub>4</sub> BC ●	8"	1413	2.51	1328	2.41	1243	2.31	1157	2.21	1068	2.11	974	1.98	872	1.83	757	1.65	
	12 <sup>1</sup> / <sub>4</sub> x 2 <sup>7</sup> / <sub>8</sub>	6"	1495	2.98	1406	2.83	1310	2.67	1210	2.50	1107	2.32	1001	2.15	887	1.97	757	1.76	
	13 x 3 <sup>1</sup> / <sub>4</sub>	6"	1508	3.60	1445	3.47	1380	3.32	1312	3.15	1240	2.98	1163	2.79	1079	2.61	984	2.41	
	12 <sup>1</sup> / <sub>4</sub> x 2 <sup>7</sup> / <sub>8</sub>	7"	1573	3.33	1477	3.18	1381	3.03	1283	2.87	1178	2.69	1063	2.47	931	2.20	774	1.87	
	13 x 3 <sup>1</sup> / <sub>4</sub>	7"	1576	3.66	1513	3.52	1447	3.37	1377	3.21	1303	3.04	1222	2.86	1132	2.67	1029	2.45	
	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	6"	1595	3.87	1521	3.74	1447	3.59	1372	3.44	1296	3.28	1218	3.12	1136	2.95	1049	2.77	
	12 <sup>1</sup> / <sub>4</sub> x 2 <sup>7</sup> / <sub>8</sub>	8"	1624	3.50	1529	3.34	1433	3.16	1332	2.96	1222	2.75	1097	2.53	954	2.31	784	2.07	
	13 x 3 <sup>1</sup> / <sub>4</sub>	8"	1637	3.77	1572	3.60	1504	3.43	1431	3.25	1352	3.08	1263	2.89	1162	2.69	1042	2.46	
	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	7"	1676	4.06	1592	3.87	1507	3.71	1423	3.56	1338	3.42	1254	3.26	1167	3.10	1078	2.91	
	14 x 3 <sup>1</sup> / <sub>4</sub>	6"	1656	4.61	1606	4.44	1550	4.29	1487	4.15	1418	4.03	1345	3.89	1267	3.73	1185	3.54	
	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	8"	1741	4.10	1659	3.95	1576	3.79	1492	3.64	1406	3.48	1317	3.32	1225	3.15	1128	2.97	
	14 x 3 <sup>1</sup> / <sub>4</sub>	7"	1841	5.23	1785	5.04	1722	4.83	1650	4.61	1570	4.37	1482	4.12	1388	3.86	1289	3.63	
	14 x 3 <sup>1</sup> / <sub>4</sub>	8"	2021	5.54	1942	5.35	1853	5.13	1754	4.89	1649	4.63	1540	4.35	1429	4.08	1317	3.79	
	PBS-15A	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	6"	1768	3.47	1690	3.37	1601	3.24	1500	3.08	1388	2.90	1264	2.70	1132	2.50	992	2.29
		14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	8"	2112	4.36	2011	4.17	1892	3.92	1756	3.62	1604	3.32	1443	3.02	1275	2.75	1099	2.50
14 x 3 <sup>1</sup> / <sub>4</sub> BC ●		10"	2174	4.43	2058	4.24	1929	4.00	1787	3.72	1633	3.41	1466	3.09	1286	2.79	1090	2.49	
15 <sup>1</sup> / <sub>2</sub> x 5 BC ●		6"	2057	5.37	1971	5.18	1886	5.01	1801	4.84	1715	4.67	1628	4.50	1538	4.34	1445	4.16	
14 x 3 <sup>1</sup> / <sub>4</sub>		6"	2206	5.75	2122	5.64	2031	5.48	1934	5.28	1831	5.04	1722	4.77	1606	4.49	1481	4.19	
16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub> BC ●		6"	2248	6.47	2182	6.35	2108	6.21	2028	6.06	1942	5.90	1850	5.71	1755	5.51	1656	5.29	
15 <sup>1</sup> / <sub>2</sub> x 5		6"	2379	8.19	2311	8.05	2242	7.89	2171	7.70	2099	7.50	2024	7.28	1947	7.05	1866	6.80	
15 <sup>1</sup> / <sub>2</sub> x 5 BC ●		8"	2688	7.43	2570	7.18	2448	6.88	2323	6.54	2197	6.18	2069	5.83	1938	5.48	1805	5.14	
16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub>		6"	2618	9.81	2549	9.59	2480	9.38	2408	9.18	2335	9.00	2259	8.81	2182	8.63	2103	8.43	
14 x 3 <sup>1</sup> / <sub>4</sub>		8"	2924	8.02	2774	7.64	2624	7.24	2472	6.83	2315	6.40	2150	5.96	1975	5.49	1785	4.99	
16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub> BC ●		8"	2711	7.79	2637	7.64	2559	7.46	2475	7.26	2385	7.04	2287	6.79	2182	6.53	2069	6.26	
15 <sup>1</sup> / <sub>2</sub> x 5 BC ●		10"	2821	7.88	2715	7.62	2599	7.31	2473	6.97	2338	6.59	2197	6.19	2050	5.78	1898	5.36	
16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub> BC ●		10"	2818	7.86	2748	7.70	2671	7.52	2584	7.32	2487	7.09	2379	6.85	2260	6.58	2129	6.30	
14 x 3 <sup>1</sup> / <sub>4</sub>		10"	2995	8.38	2880	8.04	2751	7.68	2607	7.27	2446	6.81	2268	6.30	2073	5.74	1862	5.13	
15 <sup>1</sup> / <sub>2</sub> x 5		8"	3272	11.92	3171	11.60	3062	11.23	2948	10.79	2828	10.31	2702	9.80	2572	9.27	2438	8.74	
15 <sup>1</sup> / <sub>2</sub> x 5		10"	3476	12.90	3394	12.55	3301	12.15	3193	11.69	3068	11.16	2926	10.57	2769	9.93	2605	9.29	
16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub>		8"	3623	13.81	3545	13.62	3458	13.36	3360	13.04	3251	12.64	3130	12.17	2998	11.64	2855	11.08	
16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub>	10"	3705	14.27	3643	14.09	3575	13.88	3499	13.62	3414	13.31	3318	12.94	3209	12.51	3086	12.01		
PBS-18	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	6"	1520	3.35	1438	3.23	1355	3.12	1271	3.00	1185	2.89	1097	2.77	1006	2.64	909	2.50	
	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	8"	1589	3.41	1517	3.32	1441	3.22	1361	3.12	1277	3.00	1186	2.88	1089	2.75	981	2.59	
	14 x 3 <sup>1</sup> / <sub>4</sub> BC ●	10"	1574	3.34	1508	3.27	1437	3.18	1362	3.09	1279	2.98	1189	2.86	1088	2.72	972	2.56	
	14 x 3 <sup>1</sup> / <sub>4</sub>	6"	1795	5.29	1729	5.15	1659	4.98	1586	4.79	1510	4.59	1430	4.39	1347	4.18	1260	3.97	
	16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub> BC ●	6"	1792	5.84	1743	5.72	1693	5.59	1641	5.46	1587	5.32	1531	5.17	1473	5.02	1412	4.87	
	14 x 3 <sup>1</sup> / <sub>4</sub>	8"	2036	5.81	1952	5.61	1865	5.40	1775	5.17	1682	4.95	1586	4.71	1485	4.46	1378	4.21	
	14 x 3 <sup>1</sup> / <sub>4</sub>	10"	2067	5.85	1976	5.61	1880	5.36	1780	5.12	1678	4.88	1574	4.65	1468	4.41	1357	4.17	
	18 x 4 <sup>3</sup> / <sub>8</sub> BC ●	6"	2021	7.51	1981	7.41	1939	7.31	1893	7.19	1845	7.07	1794	6.94	1740	6.80	1683	6.65	
	16 <sup>1</sup> / <sub>2</sub> x 4 <sup>3</sup> / <sub>8</sub> BC ●	8"	2212	7.19	2131	6.98	2053	6.76</											



# PBS SERIES DIRECT DRIVE RATING TABLES at 3450 RPM

Continued from Page 6

MODEL NO.	NOMINAL WHEEL DIA. & WIDTH	NOMINAL INLET DIA.	9" SP		10" SP		11" SP		12" SP		14" SP		16" SP		18" SP		20" SP ★		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM
PBS-10A	11 1/2 x 2 7/8	6"	205	.69															
PBS-12A	12 x 2 7/8	7"	552	1.35	225	.81													
	12 1/4 x 2 7/8	7"	633	1.56	456	1.28													
	13 x 3 1/4 BC ●	7"	702	1.72	592	1.58	380	1.31											
	13 x 3 1/4	7"	811	2.01	714	1.83	587	1.60											
PBS-14A	12 1/4 x 2 7/8	6"	585	1.47	178	.76													
	12 1/4 x 2 7/8	7"	571	1.44	266	.86													
	12 1/4 x 2 7/8	8"	580	1.77	298	1.27													
	13 x 3 1/4 BC ●	6"	612	1.42	429	1.11	161	.68											
	13 x 3 1/4 BC ●	7"	617	1.46	414	1.10													
	13 x 3 1/4 BC ●	8"	617	1.43	414	1.12													
	13 x 3 1/4	6"	872	2.20	727	1.92	487	1.39											
	13 x 3 1/4	8"	897	2.18	717	1.82	488	1.34											
	13 x 3 1/4	7"	905	2.21	742	1.90	470	1.41											
	14 x 3 1/4 BC ●	6"	954	2.57	846	2.34	713	2.05	524	1.62									
	14 x 3 1/4 BC ●	7"	983	2.69	877	2.43	753	2.12	580	1.69									
	14 x 3 1/4 BC ●	8"	1023	2.76	905	2.52	764	2.21	566	1.76									
	14 x 3 1/4	6"	1101	3.31	1011	3.04	911	2.72	790	2.34									
	14 x 3 1/4	7"	1186	3.39	1076	3.14	955	2.85	810	2.50									
	14 x 3 1/4	8"	1203	3.51	1084	3.20	953	2.87	800	2.48									
PBS-15A	14 x 3 1/4 BC ●	10"	870	2.20	602	1.88													
	14 x 3 1/4 BC ●	6"	843	2.09	678	1.87	483	1.61											
	14 x 3 1/4 BC ●	8"	909	2.25	684	1.93	357	1.41											
	14 x 3 1/4	6"	1344	3.89	1192	3.55	1010	3.15	765	2.56									
	15 1/2 x 5 BC ●	6"	1347	3.97	1242	3.76	1126	3.53	995	3.26	634	2.47							
	14 x 3 1/4	8"	1578	4.46	1349	3.89	1090	3.27	782	2.57									
	14 x 3 1/4	10"	1635	4.52	1389	3.92	1110	3.35	749	2.79									
	16 1/2 x 4 3/8 BC ●	6"	1554	5.06	1449	4.82	1338	4.55	1219	4.26	927	3.58	375	2.47					
	15 1/2 x 5 BC ●	8"	1666	4.80	1520	4.47	1364	4.12	1189	3.73	709	2.58							
	15 1/2 x 5 BC ●	10"	1739	4.95	1572	4.53	1392	4.09	1186	3.63	512	2.26							
	15 1/2 x 5	6"	1780	6.53	1689	6.24	1590	5.92	1480	5.58	1206	4.71	722	3.17					
	16 1/2 x 4 3/8 BC ●	8"	1946	5.97	1813	5.66	1669	5.34	1514	4.99	1164	4.18	731	3.07					
	16 1/2 x 4 3/8 BC ●	10"	1988	6.01	1838	5.71	1682	5.40	1518	5.07	1156	4.29	647	3.03					
	16 1/2 x 4 3/8	6"	2020	8.22	1935	7.99	1845	7.73	1751	7.44	1542	6.74	1282	5.76	863	4.17			
	15 1/2 x 5	8"	2300	8.21	2156	7.69	2007	7.17	1850	6.65	1491	5.55	955	3.96					
15 1/2 x 5	10"	2438	8.66	2271	8.05	2106	7.48	1937	6.91	1568	5.74	926	3.86						
16 1/2 x 4 3/8	8"	2707	10.50	2554	9.94	2399	9.40	2243	8.88	1919	7.86	1552	6.72	988	4.76				
16 1/2 x 4 3/8	10"	2949	11.45	2799	10.85	2640	10.23	2474	9.61	2130	8.42	1746	7.19	1146	5.34				
PBS-18	14 x 3 1/4 BC ●	10"	836	2.38	664	2.16	419	1.87											
	14 x 3 1/4 BC ●	6"	801	2.32	673	2.09	499	1.75	210	1.20									
	14 x 3 1/4 BC ●	8"	858	2.40	710	2.15	511	1.78											
	14 x 3 1/4	6"	1166	3.75	1063	3.52	943	3.25	787	2.87									
	14 x 3 1/4	10"	1242	3.91	1117	3.64	975	3.33	795	2.95									
	14 x 3 1/4	8"	1263	3.93	1135	3.62	987	3.27	799	2.81									
	16 1/2 x 4 3/8 BC ●	6"	1347	4.71	1279	4.55	1206	4.39	1127	4.22	943	3.83	692	3.24					
	16 1/2 x 4 3/8 BC ●	8"	1579	5.47	1491	5.24	1399	5.01	1299	4.77	1069	4.20	759	3.40					
	16 1/2 x 4 3/8 BC ●	10"	1629	5.50	1536	5.28	1437	5.05	1332	4.80	1091	4.22	762	3.42					
	18 x 4 3/8 BC ●	6"	1624	6.49	1561	6.33	1496	6.16	1428	5.99	1282	5.62	1118	5.19	918	4.64	588	3.65	
	16 1/2 x 4 3/8	6"	1741	7.87	1680	7.63	1616	7.38	1548	7.13	1395	6.56	1206	5.89	920	4.89			
	18 x 4 3/8 BC ●	8"	1916	7.72	1846	7.50	1774	7.29	1698	7.06	1536	6.57	1344	5.99	1086	5.20	404	3.19	
	18 x 4 3/8	6"	1970	9.98	1920	9.77	1868	9.55	1814	9.33	1697	8.85	1565	8.32	1409	7.71	1209	6.93	
	18 x 4 3/8 BC ●	10"	2027	7.86	1950	7.65	1870	7.44	1787	7.21	1607	6.70	1405	6.11	1168	5.39	870	4.48	
	16 1/2 x 4 3/8	8"	2057	8.95	1986	8.72	1911	8.47	1831	8.20	1652	7.59	1432	6.81	1120	5.62			
16 1/2 x 4 3/8	10"	2105	8.94	2028	8.69	1947	8.43	1862	8.15	1674	7.52	1452	6.76	1158	5.74				
18 x 4 3/8	8"	2314	11.27	2253	11.04	2189	10.80	2124	10.55	1985	10.04	1832	9.47	1656	8.82	1440	7.99		
18 x 4 3/8	10"	2422	11.81	2355	11.57	2285	11.32	2212	11.06	2056	10.48	1883	9.81	1689	9.04	1462	8.10		
PBS-18WA	15 1/2 x 5 BC ●	10"	1657	5.33	1475	4.97	1272	4.55	1048	4.10	536	3.23							
	16 1/2 x 5 BC ●	8"	1738	6.04	1626	5.79	1507	5.53	1382	5.26	1098	4.67	737	3.97					
	15 1/2 x 5	8"	1869	6.90	1744	6.58	1613	6.26	1473	5.91	1143	5.08	617	3.77					
	16 1/2 x 5 BC ●	10"	1976	6.63	1832	6.34	1678	6.02	1511	5.67	1115	4.83	548	3.68					
	15 1/2 x 5	10"	2352	8.24	2175	7.73	1984	7.24	1780	6.76	1329	5.75	782	4.50					
	16 1/2 x 5	8"	2251	8.86	2141	8.57	2027	8.28	1907	7.96	1643	7.25	1327	6.38	881	5.13			
	17 x 6	8"	2287	9.95	2184	9.66	2080	9.36	1972	9.07	1747	8.45	1494	7.76	1181	6.85	633	5.11	
	16 1/2 x 5	10"	2761	11.47	2612	10.93	2456	10.40	2293	9.86	1943	8.76	1544	7.59	1037	6.23			
	17 x 6	10"	2819	12.03	2699	11.62	2573	11.21	2443	10.81	2162	9.99	1842	9.07	1443	7.84			
	18 1/2 x 6	10"	3423	17.82	3308	17.21	3194	16.64	3080	16.10	2852	15.09	2618	14.16	2372	13.26	2103	12.33	

★ For static pressures above 20", see the "HP Series" catalogs. For higher CFM values, see the "RBE" catalog.

● BC wheels are cast aluminum only. Not available in steel.



# PBS SERIES BELT DRIVE RATING TABLES

Ratings at 70°F., .075 Density, Sea Level  
Drive losses are not included in BHP.

## PBS-9

Outlet Area (Sq. Ft.) 0.093

Wheel Size: 9"x 27/8" Inlet: 5"

VOLUME CFM	SP (IN.) WG																			
	1.00		1.50		2.00		2.50		3.00		3.50		4.00		4.50		5.00		6.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	1515	.02																		
100	1566	.03	1879	.05	2152	.07	2399	.09	2624	.12	2834	.15	3030	.17	3214	.21	3390	.24		
150	<b>1708</b>	<b>.04</b>	1986	.07	2234	.09	2460	.11	2669	.14	2866	.17	3052	.21	3228	.23	3397	.27	3714	.34
200	1898	.07	2150	.09	2375	.12	2582	.15	2776	.17	2958	.21	3132	.24	3297	.27	<b>3456</b>	<b>.31</b>	3757	.39
250	2119	.10	2346	.13	2554	.16	2746	.19	2925	.22	3096	.25	3258	.29	<b>3413</b>	<b>.33</b>	3563	.37	3846	.45
300	2364	.15	2566	.18	2757	.21	2935	.25	3104	.28	3264	.32	<b>3416</b>	<b>.36</b>	3563	.40	3704	.44	3972	.52
350	2628	.22	2807	.25	2980	.28	3145	.32	3303	.36	<b>3453</b>	<b>.40</b>	3598	.54	3736	.48	3870	.53		
400	2907	.30	3065	.34	3221	.37	3373	.41	<b>3519</b>	<b>.46</b>	3660	.50	3797	.54	3928	.59				
450	3197	.41	3336	.45	<b>3476</b>	<b>.49</b>	3615	.53	3750	.57	3882	.62								
500	<b>3494</b>	<b>.54</b>	3618	.58	3744	.63	3870	.67	3995	.72										
550	3796	.71	3908	.75																

## PBS-10A

Outlet Area (Sq. Ft.) 0.113

Wheel Size: 10 5/8" x 2 5/8" Inlet: 6"

VOLUME CFM	SP (IN.) WG																			
	1.00		2.00		3.00		4.00		5.00		6.00		7.00		8.00		9.00		10.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	1266	.04	<b>1773</b>	<b>.09</b>	2170	.15	2507	.23	2804	.31	3072	.40	3319	.50						
200	1421	.07	1854	.13	2215	.20	2532	.29	2817	.38	3078	.48	3320	.59	3547	.71	3760	.83	3963	.95
300	1679	.13	2049	.21	2365	.30	2648	.39	2909	.49	3151	.60	3378	.72	3593	.84	3798	.97	3993	1.11
400	1981	.23	2307	.33	2588	.44	2842	.54	3078	.66	3299	.78	<b>3508</b>	<b>.91</b>	3708	1.04	3899	1.18		
500	2306	.38	2599	.51	2853	.63	3085	.76	3300	.89	<b>3503</b>	<b>1.03</b>	3696	1.17	3881	1.32				
600	2646	.60	2911	.75	3145	.89	<b>3359</b>	<b>1.04</b>	3558	1.19	3746	1.35	3926	1.51						
700	2997	.89	3238	1.06	<b>3454</b>	<b>1.23</b>	3653	1.40	3839	1.58										
800	3355	1.27	3576	1.46	3777	1.66	3963	1.85												
900	3718	1.75	3921	1.97																

## PBS-12A

Outlet Area (Sq. Ft.) 0.166

Wheel Size: 12 1/4" x 2 7/8" Inlet: 7"

VOLUME CFM	SP (IN.) WG																			
	2.00		3.00		4.00		5.00		6.00		7.00		8.00		9.00		10.00		12.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	1518	.08	1858	.14	2144	.21	2395	.28	2622	.36	2830	.45	3023	.54	3204	.64	3376	.74	3694	.96
200	1541	.11	1869	.18	2151	.26	2402	.35	2630	.44	2840	.54	3036	.64	3220	.75	3393	.86	3716	1.11
300	1628	.16	1925	.24	2189	.33	2428	.43	2648	.53	2853	.64	3045	.76	3227	.88	3399	1.01	3721	1.27
400	<b>1763</b>	<b>.24</b>	2034	.33	2275	.43	2497	.54	2703	.66	2898	.78	3081	.90	3256	1.04	<b>3423</b>	<b>1.17</b>	3737	1.46
500	1923	.34	2175	.45	2399	.57	2605	.69	2798	.82	2980	.95	3153	1.09	3319	1.23	<b>3478</b>	<b>1.38</b>	3779	1.69
600	2095	.48	2334	.61	2546	.74	2740	.88	2921	1.02	3093	1.16	3256	1.31	<b>3413</b>	<b>1.47</b>	3564	1.63	3851	1.96
700	2276	.66	2505	.81	2708	.96	2892	1.11	3065	1.27	3228	1.42	3383	1.59	3532	1.76	3675	1.93	3949	2.28
800	2463	.88	2683	1.05	2878	1.22	3056	1.39	3222	1.56	3378	1.74	3526	1.92	3669	2.10	3806	2.29		
900	2656	1.14	2866	1.34	3055	1.53	3228	1.72	3388	1.92	3539	2.11	3682	2.31	3819	2.50	3951	2.71		
1000	2854	1.47	3055	1.69	3237	1.90	<b>3405</b>	<b>2.11</b>	3560	2.33	3707	2.54	3846	2.76	3979	2.97				
1100	3058	1.85	3248	2.09	<b>3424</b>	<b>2.33</b>	3586	2.57	3738	2.80	3881	3.04								
1200	3266	2.30	<b>3446</b>	<b>2.57</b>	3614	2.83	3772	3.09	3919	3.35										
1300	<b>3478</b>	<b>2.83</b>	3648	3.12	3809	3.40	3961	3.68												
1400	3695	3.44	3854	3.75																
1500	3914	4.14																		

## PBS-14A

Outlet Area (Sq. Ft.) 0.202

Wheel Size: 14" x 3 1/4" Inlet: 7"

VOLUME CFM	SP (IN.) WG															
	2.00		4.00		6.00		8.00		10.00		12.00		14.00		16.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
200	1347	.10														
400	1465	.22	1949	.40	2347	.60	2694	.81	3003	1.03	3286	1.26				
600	1673	.40	2103	.66	2460	.93	2776	1.22	3065	1.51	3332	1.81	<b>3582</b>	<b>2.11</b>	3817	2.43
800	1919	.69	2311	1.03	2638	1.37	2929	1.73	3195	2.09	<b>3443</b>	<b>2.46</b>	3677	2.84	3898	3.22
1000	2192	1.12	2547	1.53	2853	1.95	3125	2.38	3374	2.82	3606	3.26	3824	3.71		
1200	2490	1.75	2804	2.21	3089	2.70	3346	3.20	<b>3582</b>	<b>3.72</b>	3801	4.24				
1400	2807	2.60	3080	3.10	3342	3.66	<b>3584</b>	<b>4.24</b>	3809	4.82						
1600	3137	3.72	3374	4.27	3611	4.87	3837	5.51								
1800	<b>3475</b>	<b>5.15</b>	3683	5.74	3895	6.39										

CONSULT FACTORY FOR SPEEDS HIGHER THAN SHOWN ABOVE.

FOR RPM's & BHP's IN **BOLD ITALICS**, DIRECT DRIVE BLOWERS SHOULD BE CONSIDERED.

Continued on Page 9





# PBS SERIES BELT DRIVE RATING TABLES

Drive losses are not included in BHP.

Continued from Page 8

## PBS-15A

Outlet Area (Sq. Ft.) 0.312

Wheel Size: 15<sup>1</sup>/<sub>2</sub>" x 5" Inlet: 8"

VOLUME CFM	SP (IN.) WG																			
	2.00		4.00		6.00		8.00		10.00		12.00		14.00		16.00		18.00		20.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
200	1197	.12	1688	.28	2067	.47			2674	1.24	2927	1.56	3160	1.89	3377	2.24	3581	2.60	3774	2.98
400	1238	.21	1708	.43	2079	.68	2394	.95	2696	1.62	2945	2.00	3175	2.38	3389	2.79	3592	3.21	3783	3.64
600	1322	.33	<b>1762</b>	<b>.61</b>	2117	.93	2423	1.27	2739	2.06	2981	2.50	3206	2.95	3417	3.42	3616	3.90	3805	4.39
800	1436	.50	1846	.85	2182	1.23	2475	1.64	2739	2.06	2981	2.50	3206	2.95	3417	3.42	3616	3.90	3805	4.39
1000	1567	.74	1952	1.16	2270	1.61	2550	2.08	2804	2.56	3038	3.07	3256	3.59	<b>3462</b>	<b>4.12</b>	3656	4.67		
1200	<b>1711</b>	<b>1.06</b>	2074	1.55	2376	2.06	2644	2.60	2888	3.15	3113	3.73	3324	4.31	3523	4.91	3713	5.53		
1400	1864	1.47	2207	2.04	2496	2.62	2752	3.23	2986	3.85	3204	4.48	3408	5.14	3601	5.80	3784	6.48		
1600	2024	2.00	2348	2.65	2625	3.30	2872	3.97	3097	4.66	3307	5.36	<b>3504</b>	<b>6.08</b>	3691	6.81				
1800	2192	2.65	2497	3.39	2762	4.12	3000	4.85	3217	5.61	<b>3420</b>	<b>6.38</b>	3611	7.16	3793	7.96				
2000	2365	3.44	2652	4.27	2905	5.08	3135	5.89	3345	6.71	3542	7.55	3728	8.40						
2200	2543	4.38	2812	5.30	3055	6.19	3276	7.08	<b>3480</b>	<b>7.98</b>	3671	8.89								
2400	2724	5.49	2977	6.50	3209	7.49	<b>3422</b>	<b>8.46</b>	3620	9.43	3805	10.41								
2600	2909	6.78	3146	7.89	3367	8.97	3573	10.02	3764	11.08										
2800	3097	8.27	3320	9.48	<b>3530</b>	<b>10.65</b>	3728	11.79												

Minimum motor frame size is 182T even though the BHP might be available in a smaller frame size.

## PBS-18

Outlet Area (Sq. Ft.) 0.207

Wheel Size: 18" x 4<sup>3</sup>/<sub>8</sub>" Inlet: 8"

VOLUME CFM	SP (IN.) WG																			
	4.00		6.00		8.00		10.00		12.00		14.00		16.00		18.00		20.00		22.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
200	1428	.26			2023	.93	2259	1.20	2473	1.48	2671	1.78	2856	2.09	3029	2.42				
400	1448	.43	1757	.67	2056	1.30	2282	1.64	2490	1.99	2682	2.36	2863	2.74	3034	3.13	3196	3.52	3350	3.93
600	1520	.66	1805	.97	2056	1.30	2282	1.64	2490	1.99	2682	2.36	2863	2.74	3034	3.13	3196	3.52	3350	3.93
800	1640	.96	1896	1.34	2127	1.74	2339	2.15	2536	2.58	2721	3.02	2895	3.48	3061	3.94	3218	4.41	3369	4.89
1000	<b>1793</b>	<b>1.38</b>	2022	1.81	2233	2.28	2430	2.76	2614	3.26	2789	3.78	2955	4.30	3113	4.84	3265	5.39	<b>3410</b>	<b>5.94</b>
1200	1968	1.94	2175	2.44	2368	2.96	2549	3.51	2720	4.07	2884	4.65	3040	5.25	3190	5.86	3335	6.48	<b>3475</b>	<b>7.10</b>
1400	2158	2.69	2347	3.24	2523	3.83	2690	4.43	2850	5.05	3003	5.70	3150	6.36	3291	7.03	<b>3429</b>	<b>7.72</b>	3561	8.41
1600	2358	3.63	2532	4.25	2695	4.90	2850	5.56	2998	6.24	3141	6.94	3279	7.66	<b>3413</b>	<b>8.40</b>	3542	9.15		
1800	2566	4.80	2727	5.50	2879	6.20	3023	6.93	3162	7.67	3296	8.43	<b>3425</b>	<b>9.20</b>	3551	10.00				
2000	2779	6.23	2929	7.00	3071	7.77	3207	8.56	3337	9.36	<b>3463</b>	<b>10.18</b>	3585	11.01						
2200	2997	7.93	3138	8.78	3271	9.63	3398	10.48	3521	11.35										
2400	3218	9.94	3350	10.87	<b>3476</b>	<b>11.79</b>	3597	12.72												

Minimum motor frame size is 182T even though the BHP might be available in a smaller frame size.

## PBS-18WA

Outlet Area (Sq. Ft.) 0.313

Wheel Size: 18<sup>1</sup>/<sub>2</sub>" x 6" Inlet: 10"

VOLUME CFM	SP (IN.) WG																			
	4.00		6.00		8.00		10.00		12.00		14.00		16.00		18.00		20.00		22.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
400	1382	.54	1686	.89	1944	1.28	2173	1.72	2380	2.19			2574	3.13	2750	3.71	2916	4.32	3073	4.96
600	1420	.70	1709	1.11	1959	1.57	2182	2.05	2386	2.58			2574	3.13	2750	3.71	2916	4.32	3073	4.96
800	1485	.92	<b>1758</b>	<b>1.39</b>	1996	1.90	2212	2.45	2409	3.03	2593	3.64	2765	4.28	2927	4.95	3082	5.64	3230	6.35
1000	1570	1.19	1827	1.72	2054	2.30	2260	2.91	2450	3.55	2628	4.22	2795	4.92	2954	5.64	3105	6.39	3250	7.16
1200	1668	1.54	1911	2.13	2127	2.77	2324	3.44	2507	4.14	2679	4.87	2841	5.63	2995	6.41	3142	7.22	3283	8.05
1400	<b>1774</b>	<b>1.98</b>	2007	2.64	2213	3.33	2402	4.06	2578	4.82	2743	5.61	2900	6.43	3049	7.28	3192	8.15	3329	9.04
1600	1887	2.52	2111	3.24	2309	4.00	2491	4.79	2660	5.61	2819	6.46	2970	7.34	3115	8.25	3253	9.18	3387	10.13
1800	2005	3.17	2221	3.96	2412	4.78	2587	5.64	2751	6.52	2905	7.43	3051	8.37	3191	9.34	3325	10.33	<b>3455</b>	<b>11.34</b>
2000	2126	3.95	2335	4.82	2521	5.70	2690	6.62	2848	7.57	2998	8.54	3140	9.54	3275	10.57	<b>3406</b>	<b>11.62</b>	3532	12.69
2200	2249	4.87	2453	5.81	2633	6.77	2798	7.75	2952	8.76	3097	9.80	3235	10.86	3367	11.95	<b>3494</b>	<b>13.06</b>		
2400	2374	5.92	2573	6.95	2749	7.99	2910	9.04	3060	10.12	3201	11.22	3335	12.34	<b>3464</b>	<b>13.49</b>	3587	14.66		
2600	2501	7.14	2696	8.26	2868	9.37	3025	10.50	3171	11.65	3309	12.81	<b>3440</b>	<b>14.00</b>	3566	15.21				
2800	2630	8.53	2820	9.74	2989	10.94	3143	12.14	3286	13.36	<b>3421</b>	<b>14.60</b>	3549	15.85						
3000	2760	10.09	2946	11.41	3111	12.70	3262	13.98	<b>3403</b>	<b>15.27</b>	3535	16.58								
3200	2891	11.85	3073	13.27	3236	14.65	3384	16.02	3522	17.40										
3400	3023	13.80	3202	15.34	3361	16.82	<b>3507</b>	<b>18.28</b>												
3600	3156	15.97	3331	17.63	<b>3488</b>	<b>19.22</b>														
3800	3290	18.37	<b>3462</b>	<b>20.15</b>																
4000	<b>3424</b>	<b>21.00</b>	3593	22.91																

Minimum motor frame size is 182T even though the BHP might be available in a smaller frame size.

CONSULT FACTORY FOR SPEEDS HIGHER THAN SHOWN ABOVE.  
FOR RPM's & BHP's IN **BOLD ITALICS**, DIRECT DRIVE BLOWERS SHOULD BE CONSIDERED.



# PBS SERIES DIRECT DRIVE RATING TABLES at 2850 RPM

NOTE: THESE RATINGS ARE FOR 50 CYCLE MOTORS ONLY.

CFM and BHP at Static Pressure Shown

Ratings at 70°F., .075 Density, Sea Level

MODEL NO.	NOMINAL WHEEL DIA. & WIDTH	NOMINAL INLET DIA.	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP			
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
PBS-9	8 x 2 <sup>3/4</sup>	5"	303	.21	239	.18														
	8 <sup>1/2</sup> x 2 <sup>3/4</sup>	5"	341	.25	271	.21	164	.18												
	9 x 2 <sup>7/8</sup>	5"	390	.28	321	.24	226	.20												
	9 <sup>3/4</sup> x 2 <sup>7/8</sup>	5"	435	.44	374	.40	307	.36	224	.30										
PBS-10A	9 x 2 <sup>7/8</sup>	6"	453	.38	357	.33	229	.26												
	10 <sup>1/4</sup> x 3 BC ●	6"	478	.43	400	.37	300	.32	146	.25										
	9 <sup>3/4</sup> x 2 <sup>7/8</sup>	6"	568	.56	495	.51	400	.44	275	.35										
	11 x 3 BC ●	6"	587	.58	530	.54	458	.48	362	.41	208	.31								
	10 <sup>5/8</sup> x 2 <sup>5/8</sup>	6"	658	.76	581	.69	499	.63	404	.55	248	.43								
	11 x 2 <sup>3/4</sup>	6"	667	.78	604	.70	533	.63	452	.56	343	.47								
PBS-12A	11 <sup>1/2</sup> x 2 <sup>7/8</sup>	6"	713	.84	648	.78	572	.72	489	.65	395	.57								
	11 x 3 BC ●	7"	699	.60	607	.55	499	.48	362	.40										
	10 <sup>5/8</sup> x 2 <sup>5/8</sup>	7"	851	.89	748	.80	620	.70	473	.57										
	11 x 2 <sup>3/4</sup>	7"	921	1.09	810	.97	686	.85	540	.71	355	.54								
	11 <sup>1/2</sup> x 2 <sup>7/8</sup>	7"	1015	1.32	907	1.21	792	1.09	671	.97	533	.82	285	.58						
	12 x 2 <sup>7/8</sup>	7"	1049	1.44	946	1.31	840	1.18	734	1.06	621	.94	482	.79						
	13 x 3 <sup>1/4</sup> BC ●	7"	1047	1.44	966	1.36	879	1.26	791	1.17	698	1.08	596	.99	459	.87				
PBS-14A	12 <sup>1/4</sup> x 2 <sup>7/8</sup>	7"	1098	1.61	998	1.46	891	1.31	784	1.17	673	1.04	545	.90	288	.63				
	13 x 3 <sup>1/4</sup>	7"	1181	1.79	1084	1.65	982	1.53	883	1.40	787	1.28	686	1.15	567	1.00				
	13 x 3 <sup>1/4</sup> BC ●	6"	1064	1.38	983	1.31	895	1.22	797	1.12	680	1.00	531	.83	305	.57				
	13 x 3 <sup>1/4</sup> BC ●	7"	1094	1.38	1004	1.29	911	1.20	810	1.11	691	1.01	537	.86	282	.54				
	13 x 3 <sup>1/4</sup> BC ●	8"	1134	1.39	1031	1.31	927	1.22	816	1.13	691	1.00	536	.83	273	.57				
	12 <sup>1/4</sup> x 2 <sup>7/8</sup>	6"	1202	1.64	1088	1.51	966	1.37	839	1.23	699	1.07	518	.87						
	12 <sup>1/4</sup> x 2 <sup>7/8</sup>	7"	1262	1.84	1147	1.72	1026	1.58	892	1.41	730	1.18	511	.87						
	12 <sup>1/4</sup> x 2 <sup>7/8</sup>	8"	1305	1.93	1190	1.79	1065	1.62	922	1.44	745	1.26	517	1.04						
	13 x 3 <sup>1/4</sup>	6"	1222	2.00	1144	1.88	1061	1.74	970	1.59	866	1.44	741	1.27	562	1.03				
	14 x 3 <sup>1/4</sup> BC ●	6"	1289	2.15	1200	2.03	1109	1.91	1015	1.77	916	1.63	805	1.48	673	1.28	484	.99		
	13 x 3 <sup>1/4</sup>	7"	1278	2.03	1199	1.90	1114	1.77	1019	1.63	909	1.47	771	1.28	568	1.02				
	13 x 3 <sup>1/4</sup>	8"	1328	2.08	1247	1.94	1157	1.79	1054	1.64	929	1.48	768	1.27	549	.97				
	14 x 3 <sup>1/4</sup> BC ●	7"	1352	2.24	1250	2.10	1148	1.98	1045	1.85	940	1.71	829	1.54	700	1.33	526	1.03		
14 x 3 <sup>1/4</sup> BC ●	8"	1407	2.27	1307	2.14	1204	2.01	1098	1.88	986	1.74	864	1.58	720	1.38	522	1.08			
14 x 3 <sup>1/4</sup>	6"	1500	2.55	1284	2.42	1207	2.31	1119	2.20	1025	2.07	924	1.90	814	1.67	683	1.38			
14 x 3 <sup>1/4</sup>	7"	1500	2.90	1426	2.73	1338	2.54	1235	2.34	1120	2.14	998	1.94	864	1.73	705	1.47			
14 x 3 <sup>1/4</sup>	8"	1640	3.07	1536	2.90	1415	2.70	1285	2.48	1150	2.25	1014	2.01	868	1.76	699	1.46			
PBS-15A	14 x 3 <sup>1/4</sup> BC ●	6"	1432	1.93	1328	1.83	1204	1.70	1059	1.54	898	1.37	722	1.20	522	1.02	247	.75		
	14 x 3 <sup>1/4</sup> BC ●	8"	1707	2.41	1571	2.22	1402	1.97	1211	1.72	1007	1.51	785	1.30	508	1.03				
	14 x 3 <sup>1/4</sup> BC ●	10"	1753	2.45	1601	2.27	1427	2.03	1231	1.77	1011	1.52	758	1.28	427	1.00				
	15 <sup>1/2</sup> x 5 BC ●	6"	1666	2.98	1563	2.83	1460	2.69	1355	2.55	1246	2.41	1130	2.26	1002	2.09	854	1.88		
	14 x 3 <sup>1/4</sup>	6"	1790	3.22	1683	3.10	1565	2.92	1435	2.71	1293	2.48	1135	2.23	949	1.95	697	1.56		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup> BC ●	6"	1832	3.62	1746	3.51	1648	3.38	1539	3.23	1423	3.07	1301	2.88	1174	2.68	1035	2.45		
	USE 182T FRAME MIN.	15 <sup>1/2</sup> x 5	6"	1939	4.58	1856	4.45	1770	4.30	1681	4.12	1587	3.93	1486	3.71	1375	3.47	1249	3.20	
	15 <sup>1/2</sup> x 5 BC ●	8"	2176	4.13	2029	3.89	1878	3.61	1724	3.31	1565	3.02	1400	2.75	1224	2.47	1024	2.16		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup>	6"	2136	5.47	2052	5.29	1965	5.14	1875	4.98	1781	4.83	1683	4.66	1580	4.47	1469	4.24		
	14 x 3 <sup>1/4</sup>	8"	2357	4.42	2176	4.10	1991	3.76	1796	3.39	1582	3.00	1341	2.58	1062	2.11	723	1.57		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup> BC ●	8"	2212	4.35	2119	4.21	2016	4.04	1901	3.85	1773	3.63	1629	3.40	1468	3.15	1287	2.87		
	15 <sup>1/2</sup> x 5 BC ●	10"	2291	4.38	2154	4.14	2000	3.84	1831	3.52	1653	3.18	1465	2.84	1262	2.49	1030	2.12		
	14 x 3 <sup>1/4</sup>	10"	2431	4.64	2280	4.34	2103	4.00	1895	3.59	1657	3.12	1391	2.62	1091	2.12	714	1.67		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup> BC ●	10"	2302	4.39	2211	4.25	2104	4.08	1978	3.88	1832	3.66	1667	3.42	1486	3.18	1292	2.91		
15 <sup>1/2</sup> x 5	8"	2665	6.64	2536	6.34	2396	5.98	2247	5.57	2089	5.13	1924	4.69	1750	4.26	1565	3.83			
15 <sup>1/2</sup> x 5	10"	2841	7.18	2732	6.87	2598	6.47	2434	6.00	2244	5.48	2042	4.95	1841	4.46	1639	3.98			
16 <sup>1/2</sup> x 4 <sup>3/8</sup>	8"	2964	7.74	2861	7.54	2741	7.27	2600	6.90	2439	6.46	2262	5.99	2077	5.52	1888	5.08			
16 <sup>1/2</sup> x 4 <sup>3/8</sup>	10"	3037	8.00	2957	7.83	2864	7.61	2753	7.33	2619	6.96	2460	6.52	2279	6.03	2082	5.52			
PBS-18	14 x 3 <sup>1/4</sup> BC ●	6"	1224	1.86	1124	1.76	1022	1.67	917	1.57	806	1.46	681	1.33	524	1.14	247	.77		
	14 x 3 <sup>1/4</sup> BC ●	10"	1275	1.87	1191	1.80	1099	1.72	993	1.62	869	1.51	716	1.36	505	1.18				
	14 x 3 <sup>1/4</sup> BC ●	8"	1285	1.90	1195	1.82	1097	1.73	991	1.63	871	1.52	731	1.38	550	1.17	231	.75		
	14 x 3 <sup>1/4</sup>	6"	1458	2.95	1375	2.82	1286	2.66	1191	2.49	1090	2.32	980	2.14	854	1.95	691	1.69		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup> BC ●	6"	1462	3.26	1401	3.16	1338	3.05	1271	2.93	1200	2.80	1124	2.68	1041	2.54	950	2.41		
	14 x 3 <sup>1/4</sup>	8"	1650	3.22	1546	3.05	1436	2.87	1321	2.67	1198	2.47	1064	2.25	908	1.99	709	1.66		
	USE 182T FRAME MIN.	14 x 3 <sup>1/4</sup>	10"	1673	3.23	1559	3.03	1438	2.83	1312	2.64	1183	2.44	1046	2.24	894	2.01	703	1.73	
	18 x 4 <sup>3/8</sup> BC ●	6"	1654	4.21	1604	4.12	1549	4.03	1488	3.92	1422	3.81	1352	3.68	1276	3.55	1196	3.40		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup> BC ●	8"	1796	4.00	1700	3.82	1607	3.65	1514	3.47	1419	3.29	1319	3.11	1213	2.92	1096	2.73		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup> BC ●	10"	1803	3.80	1730	3.70	1649	3.58	1561	3.44	1465	3.29	1361	3.12	1248	2.94	1125	2.74		
	16 <sup>1/2</sup> x 4 <sup>3/8</sup>	6"	1772	5.28	1710	5.15	1648	5.00	1584	4.83	1518	4.65	1448	4.47	1374	4.27	1294	4.06		
	18 x 4 <sup>3/8</sup>	6"	1902	6.41	1852	6.27	1801	6.												

# PBS SERIES DIRECT DRIVE RATING TABLES at 2850 RPM (cont'd)

**NOTE: THESE RATINGS ARE FOR 50 CYCLE MOTORS ONLY.**

Continued from Page 10

MODEL NO.	NOMINAL WHEEL DIA. & WIDTH	NOMINAL INLET DIA.	9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP★	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
<b>PBS-14A</b>	14 x 3 1/4	7"	385	.89														
	14 x 3 1/4	8"	414	.97														
<b>PBS-15A</b> (1)  USE 182T FRAME MIN.	14 x 3 1/4	6"	111	.61														
	15 1/2 x 5 BC ●	6"	664	1.60	381	1.18												
	15 1/2 x 5 BC ●	10"	720	1.67														
	15 1/2 x 5 BC ●	8"	775	1.77	356	1.08												
	16 1/2 x 4 3/8 BC ●	6"	874	2.19	656	1.86	280	1.35										
	16 1/2 x 4 3/8 BC ●	10"	1083	2.61	841	2.23	498	1.64										
	16 1/2 x 4 3/8 BC ●	8"	1085	2.56	855	2.18	579	1.68										
	15 1/2 x 5	6"	1098	2.88	898	2.45	558	1.70										
	15 1/2 x 5	8"	1360	3.39	1115	2.89	747	2.15										
	16 1/2 x 4 3/8	6"	1347	3.97	1210	3.64	1044	3.21	810	2.59								
	15 1/2 x 5	10"	1427	3.51	1176	2.98												
	16 1/2 x 4 3/8	8"	1696	4.66	1492	4.24	1261	3.74	951	3.02								
	16 1/2 x 4 3/8	10"	1877	5.02	1661	4.53	1421	4.01	1097	3.33								
<b>PBS-18</b> (1)  USE 182T FRAME MIN.	14 x 3 1/4	6"	159	.68														
	14 x 3 1/4	8"	262	.93														
	16 1/2 x 4 3/8 BC ●	6"	845	2.25	720	2.07	556	1.80	256	1.22								
	16 1/2 x 4 3/8 BC ●	8"	965	2.51	810	2.24	608	1.88										
	16 1/2 x 4 3/8 BC ●	10"	987	2.52	825	2.25	607	1.89										
	18 x 4 3/8 BC ●	6"	1110	3.25	1017	3.09	915	2.91	797	2.69	643	2.39	327	1.72				
	16 1/2 x 4 3/8	6"	1206	3.83	1106	3.59	985	3.30	822	2.91	465	2.01						
	18 x 4 3/8 BC ●	8"	1325	3.82	1220	3.60	1100	3.35	950	3.04	721	2.56	122	1.46				
	18 x 4 3/8 BC ●	10"	1390	3.90	1275	3.68	1150	3.42	1008	3.13	845	2.79	639	2.36				
	16 1/2 x 4 3/8	8"	1428	4.43	1310	4.15	1170	3.81	990	3.34	672	2.49						
	16 1/2 x 4 3/8	10"	1448	4.39	1327	4.11	1188	3.78	1016	3.38	755	2.77						
	18 x 4 3/8	6"	1443	5.10	1368	4.90	1286	4.67	1193	4.42	1083	4.13	946	3.76	742	3.19		
	18 x 4 3/8	8"	1688	5.78	1600	5.56	1505	5.32	1400	5.05	1280	4.74	1135	4.35	938	3.78	432	2.18
18 x 4 3/8	10"	1752	6.04	1653	5.79	1546	5.51	1430	5.19	1301	4.83	1152	4.41	965	3.87	631	2.96	
<b>PBS-18WA</b> (1)  USE 182T FRAME MIN.	15 1/2 x 5 BC ●	10"	624	2.01	276	1.69												
	16 1/2 x 5 BC ●	8"	1008	2.77	819	2.51	587	2.21	259	1.86								
	16 1/2 x 5 BC ●	10"	1064	2.93	791	2.53	416	2.03										
	15 1/2 x 5	8"	1064	3.07	833	2.67	468	2.06										
	15 1/2 x 5	10"	1255	3.48	963	3.04	612	2.48										
	16 1/2 x 5	8"	1449	4.26	1278	3.94	1078	3.56	821	3.07	385	2.29						
	17 x 6	8"	1521	4.91	1378	4.65	1220	4.35	1036	3.99	791	3.47						
	16 1/2 x 5	10"	1726	5.19	1503	4.73	1254	4.24	958	3.69	489	2.95						
	17 x 6	10"	1883	5.82	1704	5.47	1504	5.08	1269	4.59	956	3.88						
18 1/2 x 6	10"	2433	8.73	2294	8.33	2151	7.95	2003	7.58	1846	7.21	1674	6.81	1479	6.35	1235	5.76	

★For static pressures above 16", see the "HP Series" catalogs. For higher CFM values, see the "RBE Series" catalog.  
●BC wheels are cast aluminum only. Not available in steel.

8 STANDARD DISCHARGE POSITIONS AVAILABLE. 45° DISCHARGE POSITIONS NOT SHOWN.★  
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



**CCW-DB**  
Counter-  
Clockwise  
Down-Blast  
Discharge



**CCW-BH**  
Counter-  
Clockwise  
Bottom  
Horizontal  
Discharge



**CCW-UB**  
Counter-  
Clockwise  
Up-Blast  
Discharge

★ Discharge flange not available on some discharge positions. See page 19.

# MATERIAL CONVEYING

Bulky materials such as those shown in Table 1, page 13, can be conveyed pneumatically using a Cincinnati Fan "PBS" series pressure blower. Follow the steps below to determine the fan best suited for your application.

EXAMPLE: Assume a requirement to move 900 pounds per hour of barley through 75 feet of straight, horizontal, round duct. See notes 1 & 2 below.

- I. Convert pounds per hour to pounds per minute:  $900 \text{ lbs/hr} \div 60 = 15 \text{ lbs/min}$
- II. Refer to Table 1, page 13. Find "barley" under material (column A) and read horizontally. Barley weighs 38 pounds per cubic foot (column B), requires 38 CFM of air per pound of material (column C) and a minimum of 5000 feet per minute conveying velocity (column D).
- III. Determine the *minimum* cubic feet per minute (CFM) requirements:

$$\begin{array}{r} \text{CFM/LB of Material} \quad 38 \text{ (from column C)} \\ \times \quad \text{lbs/Minute} \quad = \quad \times 15 \text{ (from step 1)} \\ \hline 570 \text{ Total minimum CFM required @ 5000 ft/min conveying velocity (column D)} \end{array}$$

- IV. Determine the system static pressure requirements from Table 2, page 13. Read across the 5000 ft/min velocity line to the 6" duct size column.

We have selected 6" duct size with 980 CFM (actual) to maintain a velocity of 5000 ft/min.

The friction loss is  $8.02'' \text{ SP per } 100' \times .75 = 6.01''$  plus  $3.5'' \text{ SP suction pickup}$  (column E, Table 1) =  $9.51''$  total system static pressure for 75 feet of straight 6" duct.

- V. Check direct drive rating tables for 980 CFM at  $9.51'' \text{ SP}$  at the lowest horsepower. We suggest a Model PBS-14A, 14 x  $3\frac{1}{4}$  wheel, 6" inlet. Interpolate 3.10 BHP. **Do not use B.C. type wheels for material conveying.**
- VI. If material being conveyed will be going through the fan, the fan BHP can be significantly increased. The approximate increase is calculated as:

$$\begin{aligned} \text{Actual BHP} &= \frac{\text{lbs/Minute of air} + \text{lbs/Minute of material}}{\text{lbs/Minute of air}} \times \text{Fan BHP (3.10, Step V)} \\ \text{In this example: lbs/Minute of air} &= 980 \text{ (Actual CFM, Step IV)} \times .075 \text{ lbs/ft}^3 \left( \frac{\text{Standard}}{\text{Density}} \right) = 73.5 \\ \text{lbs/Minute of material} &= 15 \\ \text{Therefore: } \frac{73.5 + 15}{73.5} &= \frac{88.5}{73.5} = 1.20 \times 3.10 = 3.72 \text{ Actual BHP} \end{aligned}$$

(See note 3)

- NOTES:**
1. For each 10 feet of vertical duct, add 10 feet to your total straight duct length.
  2. For equivalent losses through elbows, see chart on page 9 of our Engineering Data catalog.
  3. Make sure you use correct density for location of fan.

## YOUR MATERIAL CONVEYING CALCULATIONS

(1) Material Being Conveyed	(1) _____	
(2) Pounds Conveyed/Hour	(2) _____	
	$\div 60$	
(3) Pounds/Minute	→ (3) _____	
(4) Feet of Straight Horizontal Duct	(4) _____	See note 1 above
(5) Number of 90° Elbows	(5) + _____	See note 2 above
(6) Total Equivalent Feet of Duct	→ (6) _____	
(7) Material Weight, Lbs./Cu. Ft. (col. B)	(7) _____	
(8) CFM/Pound of Material (col. C)	(8) _____	
(9) Pounds/Minute (step 3)	(9) x _____	
(10) Total Min. CFM Required	→ (10) _____	
(11) Min. Conveying Velocity in FPM (col. D)	(11) _____	
(12) Duct Size to Get Total CFM (step 10) @ Minimum Velocity (step 11) per table 2		(12) _____ DUCT SIZE
(13) Actual CFM for Duct (step 12)		(13)* _____ ACTUAL CFM*
(14) Friction Loss/100 Ft.	(14) _____	
(15) Total Equivalent Feet of Duct (step 6) (in 100's of feet)	(15) x _____ (in 100's of feet)	
(16) Suction Pickup in Inches of WC (col. E)	(16) ± _____	
(17) Total System SP	→ (17) _____	TOTAL SYSTEM SP

FAN MODEL TO GET #13 (Actual CFM) & #17 (Total SP) ABOVE

NOTE: If conveying long, stringy material, be sure to specify paper trim type wheel.

FAN RPM \_\_\_\_\_

ACTUAL FAN BHP \_\_\_\_\_ (See VI above)

\*Must be equal or greater than Step 10.

**TABLE 1**

A	B	C	D	E
Material	Approx. Weight (Lbs./Cu. Ft.)	Cu. Ft. of Air Per Lb. of Material	Min. Conveying Velocity (In fpm*)	Suction Pickup (Inches of W.C.)
Ashes, Coal	30	42	4500	3.0
Barley	38	38	5000	3.5
Beans, Soy	47	36	5200	4.0
Bran	16	56	3500	2.0
Cement, Portland	100	35	7000	5.0
Cinders, Coal	45	36	6000	4.0
Coal, Powdered	30	42	4000	3.0
Coffee, Beans	42	36	3500	3.0
Cork, Ground	14	59	3500	1.5
Corn, Cobs	25	44	5000	2.5
Corn, Meal	40	38	5500	3.5
Corn, Shelled	45	36	5500	3.5
Cotton, Dry	5	94	4000	2.0
Dust, Grinding	30	42	5000	3.0
Fruit, Dried	30	42	4000	3.0
Hair or Feathers, Dry	5	94	3000	1.5
Lime, Hydrated	30	42	5000	3.0
Malt, Dry	35	39	4800	3.0
Oats	26	44	4500	3.0
Paper, Shredded	20	49	5000	3.0
Plastic, Granulated	35	42	5400	3.0
Rags, Dry	30	42	4500	2.5
Salt, Coarse	45	36	5500	4.0
Sand, Dry	105	35	7000	5.0
Sawdust, Dry	13	63	3700	2.5
Wheat, Dry	46	37	5800	4.0
Wood Chips, Heavy	24	45	4500	3.0
Wood Shavings, Light	9	73	3400	2.0
Wool, Dry	5	94	5000	2.0

\* Feet per minute

**⚠ WARNING**

When fans are used in material conveying applications, care must be used in their selection and location within each material conveying system. The material should be crushed, shredded or pulverized **BEFORE** it passes through the fan to eliminate premature fan housing, wheel and/or bearing failure which could cause severe, personal injury and/or complete system failure. Please contact a Cincinnati Fan sales engineer in your area for selection assistance for your specific application.

**TABLE 2**

**Friction Loss (FL) in Inches of Water per 100 Feet of Straight, Horizontal, Round Duct**

VEL FPM	PIPE DIAMETER & AREA IN SQ. FT.																					
	4" .087		5" .136		6" .196		7" .267		8" .349		10" .545		12" .785		14" 1.069		16" 1.396		18" 1.767		20" 2.182	
	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL	CFM	FL
2600	227	3.26	355	2.60	511	2.17	695	1.86	909	1.63	1420	1.30	SEE "RBE" CATALOG									
2800	245	3.76	382	3.01	550	2.52	748	2.15	977	1.89	1530	1.61										
3000	262	4.33	409	3.46	588	2.88	802	2.47	1048	2.08	1638	1.73										
3200	279	4.93	437	3.94	628	3.28	855	2.82	1118	2.47	1748	1.97										
3400	297	5.56	464	4.45	668	3.71	910	3.18	1188	2.78	1855	2.22										
3500	304	5.89	476	4.71	686	3.93	935	3.37	1222	2.95	1908	2.35										
3600	314	6.23	492	4.98	707	4.15	962	3.56	1258	3.12	1965	2.49										
3700	322	6.59	503	5.26	725	4.38	988	3.76	1291	3.30	2017	2.63										
3800	332	6.95	518	5.55	746	4.62	1018	3.97	1327	3.48	2070	2.78										
4000	350	7.69	546	6.15	796	5.13	1070	4.40	1396	3.85	2184	3.08										
4200	367	8.48	573	6.78	825	5.65	1125	4.85	1467	4.25	2290	3.49										
4400	384	9.26	600	7.41	864	6.18	1176	5.30	1536	4.63	2400	3.71										
4500	392	9.70	612	7.77	882	6.48	1202	5.55	1571	4.86	2453	3.89										
4800	418	11.05	654	8.85	944	7.38	1284	6.32	1676	5.55	2620	4.43										
5000	435	12.02	680	9.67	980	8.02	1335	6.88	1745	6.02	2725	4.82										
5200	454	13.00	710	10.50	1022	8.66	1390	7.44	1818	6.50	2840	5.21										
5500	479	14.68	748	11.64	1078	9.68	1469	8.31	1920	7.28	2997	5.81										
5600	490	15.25	764	12.05	1100	10.05	1496	8.61	1954	7.55	3060	6.03										
5800	505	16.27	789	12.95	1137	10.78	1549	9.25	2024	8.10	3161	6.47										
6000	524	17.30	818	13.85	1176	11.52	1604	9.89	2096	8.66	3276	6.92										
7000	611	23.60	955	18.90	1375	15.65	1873	13.50	2445	11.80	3820	9.41										



# DIMENSIONS and SPECIFICATIONS

**NOTE:** The table below contains blower housing dimensions common to all arrangements on pages 15, 16, 17 and 18. Housings on all arrangements are rotatable in 90° increments. Housings on Arrangements 1, 8 and 9 are rotatable in 45° increments. Housings are not reversible on any arrangements. Discharge flanges are not available for some discharge positions. See note 4 below and page 19.

DIMENSIONS IN INCHES ± 1/8"

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL	C	D	J	M	N	O	P	R	S	AA	DD ④
PBS-9	2	3 5/8	3 13/16	5 3/4	1 3/16	6 1/8	7 1/8	7 3/4	6 1/2	4 15/16	4
PBS-10A	2	4	4	6 13/16	1 1/8	6 11/16	8 5/16	9	7 9/16	5 15/16	4 3/8
PBS-12A	2	4 5/8	4 5/16	7 5/8	1 1/8	7 3/4	9 1/4	10 3/8	8 1/2	6 15/16	5 1/2
PBS-14A	2	5 1/8	4 9/16	8 3/16	1 1/4	8 9/16	10 5/16	11 3/16	9 1/2	6 15/16 ①	6
PBS-15A	2	5 7/8	4 15/16	8	1 3/8	9 1/4	10 13/16	12	9 7/8	7 15/16 ②	8
PBS-18	2	5 1/4	4 5/8	10 3/4	1 5/16	10 1/2	12 3/4	13 3/4	11 7/16	7 5/16 ②	6
PBS-18WA	2	6 3/4	5 3/8	9 7/8	1	10 7/8	12 3/8	13 3/8	11 5/8	9 15/16 ③	7

① PBS-14A also available with 6" and 8" inlets.

② PBS-15A and PBS-18 also available with 6" and 10" inlets.

③ PBS-18WA also available with 8" inlet.

④ Discharge flange not available for some discharge positions. See page 19. If fan is selected with a round discharge flange and an inlet flange, the O.D. of the discharge flange will extend past the face of the inlet flange. A square discharge flange will not extend past the face of an inlet flange.

## Standard Construction Gauges

MODEL	Housing	Inlet Side Plate	Flanges for Inlet or Discharge	ARR.#4 Base	ARR.#2 Base	ARR.#8 Base	ARR.#1 & 9 Base	Wheel	
								Blades	Back Plate
PBS-9	10	10	10	12	7	10 & 7	10	10	
PBS-10A	10	10	10	12	7	10 & 7	10	10	
PBS-12A	10	10	10	12 & 10	7	10 & 7	10	10 & 7	
PBS-14A	10	10	10	10 & 7	7	10 & 7	10	7	
PBS-15A	10	10	10	10 & 7	7	10 & 7	10	7	
PBS-18	10	10	10	10 & 7	7	10 & 7	10	7	
PBS-18WA	10	10	10	10 & 7	—	10 & 7	10	7	

## Approximate Shipping Weight in Pounds (less options)\*

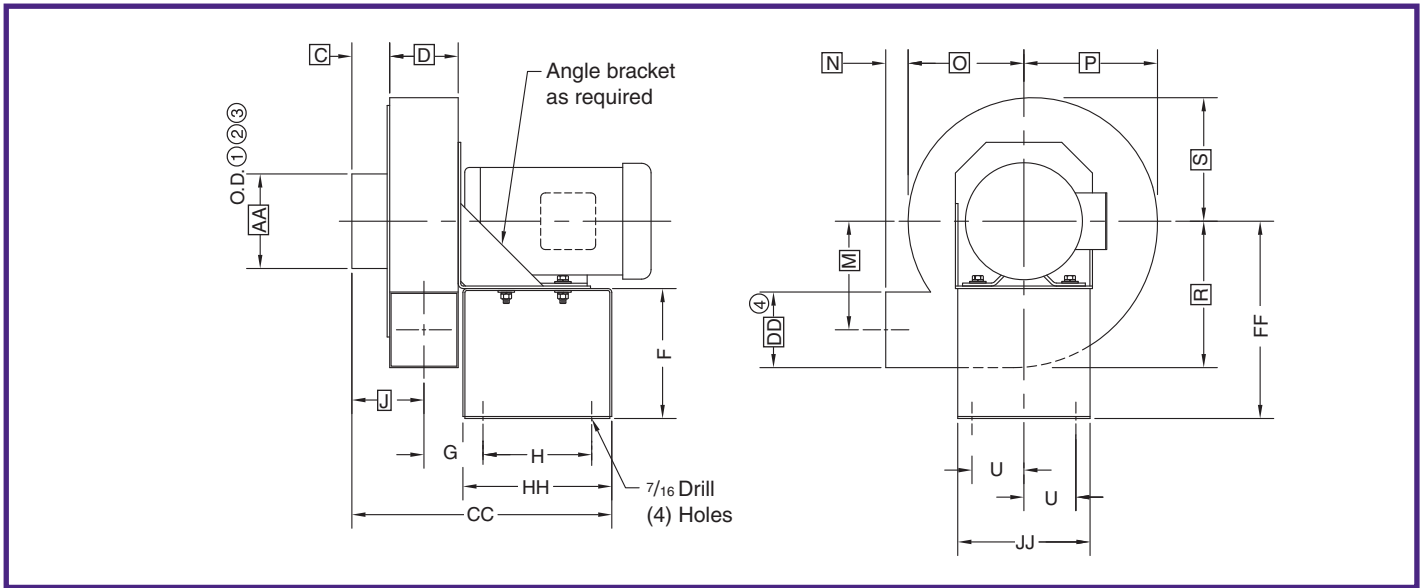
MODEL	ARR.1 (No motor)	ARR.2 (No motor)	ARR.4	ARR.4HM	ARR.8	ARR.9	NOMINAL MOTOR HP-WT. (in Pounds)
PBS-9	77	48	69	60	150	123	1/2 - 22
PBS-10A	96	61	83	74	170	146	1 - 24
PBS-12A	111	74	136	120	232	202	2 - 41
PBS-14A	172	118	174	163	304	271	3 - 54
PBS-15A	189	133	232	211	352	329	5 - 76
PBS-18	200	142	238	229	368	347	7 1/2 - 87
PBS-18WA	241	N/A	341	276	478	468	10 - 122

\* Arrangement 4, 4HM, 8 and 9 weights include the nominal HP and corresponding motor weight indicated in column eight. Make corrections as necessary by deducting the nominal weight and adding the weight of the actual motor being used.



# DIMENSIONS and SPECIFICATIONS

## Arrangement #4, Direct Drive



**Note:** For common boxed blower housing dimensions, see Page 14.

**DIMENSIONS IN INCHES  $\pm 1/8"$**

**DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

MODEL NO.	MOTOR FRAME	F	G	H	U	CC	FF	HH	JJ	MM
PBS-9	56	6 <sup>7/8</sup>	3 <sup>1/8</sup>	5 <sup>3/4</sup>	2 <sup>3/4</sup>	13 <sup>3/4</sup>	10 <sup>7/16</sup>	7 <sup>7/8</sup>	7	3 <sup>15/16</sup>
	143T-145T	8 <sup>1/4</sup>	3 <sup>15/16</sup>	5	3 <sup>3/4</sup>	14 <sup>1/4</sup>	11 <sup>7/8</sup>	8	9	
PBS-10A	56	6 <sup>7/8</sup>	3 <sup>5/16</sup>	5 <sup>3/4</sup>	2 <sup>3/4</sup>	14 <sup>1/8</sup>	10 <sup>7/16</sup>	7 <sup>7/8</sup>	7	4 <sup>1/8</sup>
	143T-145T	8 <sup>1/4</sup>	4 <sup>1/8</sup>	5	3 <sup>3/4</sup>	14 <sup>5/8</sup>	11 <sup>7/8</sup>	8	9	
PBS-12A	56	8 <sup>1/4</sup>	4 <sup>1/16</sup>	5	3 <sup>3/4</sup>	15	11 <sup>7/8</sup>	8	9	4 <sup>7/16</sup>
	143T-145T		4 <sup>7/16</sup>	5	3 <sup>3/4</sup>	15 <sup>1/4</sup>		8	9	
	182T-184T	6 <sup>7/16</sup>	4 <sup>13/16</sup>	8 <sup>3/4</sup>	4 <sup>15/16</sup>	19 <sup>3/8</sup>		11 <sup>3/4</sup>	12	
PBS-14A	56-213T	9 <sup>15/16</sup>	5 <sup>1/16</sup>	8 <sup>3/4</sup>	4 <sup>15/16</sup>	19 <sup>7/8</sup>	15 <sup>3/16</sup>	11 <sup>3/4</sup>	12	4 <sup>11/16</sup>
PBS-15A	182T-215T	9 <sup>15/16</sup>	5 <sup>7/16</sup>	8 <sup>3/4</sup>	4 <sup>15/16</sup>	20 <sup>5/8</sup>	15 <sup>3/16</sup>	11 <sup>3/4</sup>	12	5 <sup>1/16</sup>
	254T-256T	8 <sup>15/16</sup>		13		24 <sup>7/8</sup>		16	16 <sup>1/2</sup>	
PBS-18	182T-215T	9 <sup>15/16</sup>	5 <sup>1/8</sup>	8 <sup>3/4</sup>	4 <sup>15/16</sup>	20	15 <sup>3/16</sup>	11 <sup>3/4</sup>	12	4 <sup>3/4</sup>
	254T-256T	8 <sup>15/16</sup>		13		24 <sup>1/4</sup>		16	16 <sup>1/2</sup>	
PBS-18WA	182T-215T	12 <sup>3/4</sup>	5 <sup>7/8</sup>	10 <sup>3/4</sup>	6 <sup>1/4</sup>	23 <sup>1/2</sup>	18	13 <sup>3/4</sup>	16 <sup>1/2</sup>	5 <sup>1/2</sup>
	254T-256T	11 <sup>3/4</sup>		15 <sup>3/4</sup>		28 <sup>1/2</sup>		18 <sup>3/4</sup>		
	284T-286T	11		—						

① PBS-14A also available with 6" and 8" inlets.

② PBS-15A and PBS-18 also available with 6" and 10" inlets.

③ PBS-18WA also available with 8" inlet.

④ Discharge flange not available for some discharge positions. See page 19.

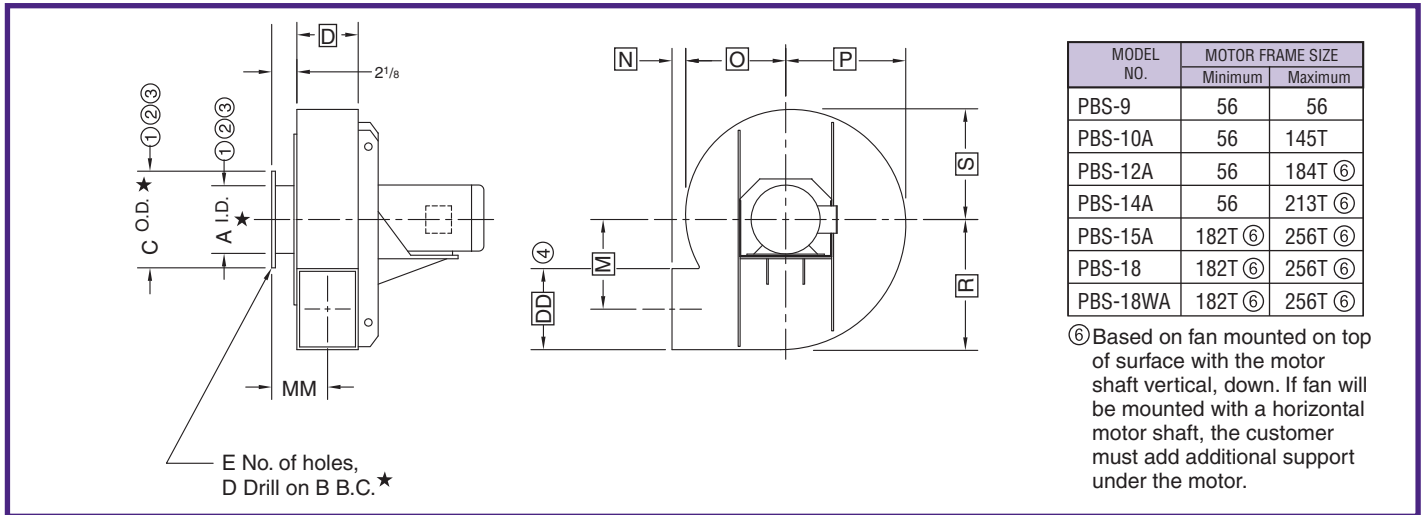
MM dimension pertains to arrangement #4HM on page 16 only.



# DIMENSIONS and SPECIFICATIONS

## Arrangement #4 HM, (Horizontal Mount) Direct Drive

NOTE: Inlet flange is standard on arrangement #4HM.



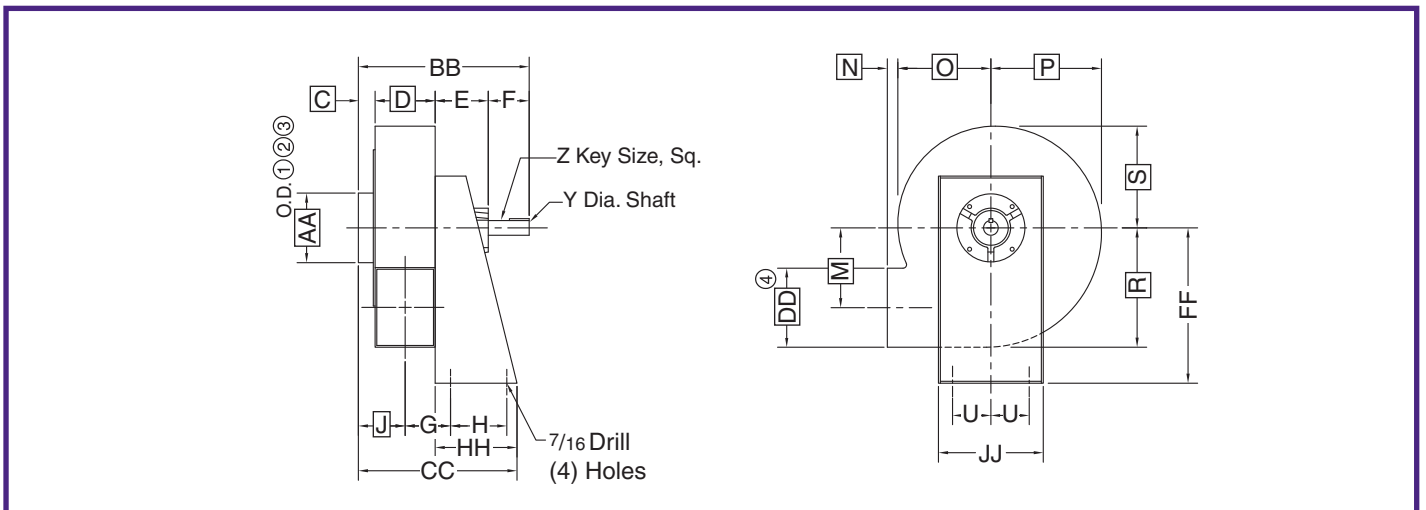
**Note: For common boxed blower housing dimensions, see Page 14.**

★ For inlet flange dimensions, see inlet flange dimensions on page 19. For MM dimension, see page 15.

④ Discharge flanges not available for some discharge positions. See page 19.



## Arrangement #2, Belt Drive



**Note: For common boxed blower housing dimensions, see Page 14.**

DIMENSIONS IN INCHES ± 1/8"

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL NO.	E	F	G	H	U	Y	Z	BB	CC	FF	HH	JJ
PBS-9	3 11/16	3	2 13/16	4 1/4	2 7/8	3/4	3/16	12 5/16	11 5/8	9 7/8	6	7 3/4
PBS-10A	3 11/16	3	3	4 1/4	2 7/8	3/4	3/16	12 11/16	12	9 7/8	6	7 3/4
PBS-12A	5 1/2	4	3 13/16	4 1/2	3 1/8	1	1/4	16 1/8	13 5/8	11 1/2	7	9
PBS-14A	5 3/16	4	4 1/16	5 1/2	3 3/4	17/16	3/8	16 5/16	15 1/8	15	8	10 1/4
PBS-15A	5 3/16	4	4 7/16	5 1/2	3 3/4	17/16	3/8	17 1/16	15 7/8	15	8	10 1/4
PBS-18	5 3/16	4	4 1/8	5 1/2	3 3/4	17/16	3/8	16 7/16	15 1/4	15	8	10 1/4

④ Discharge flanges not available for some discharge positions. See page 19.

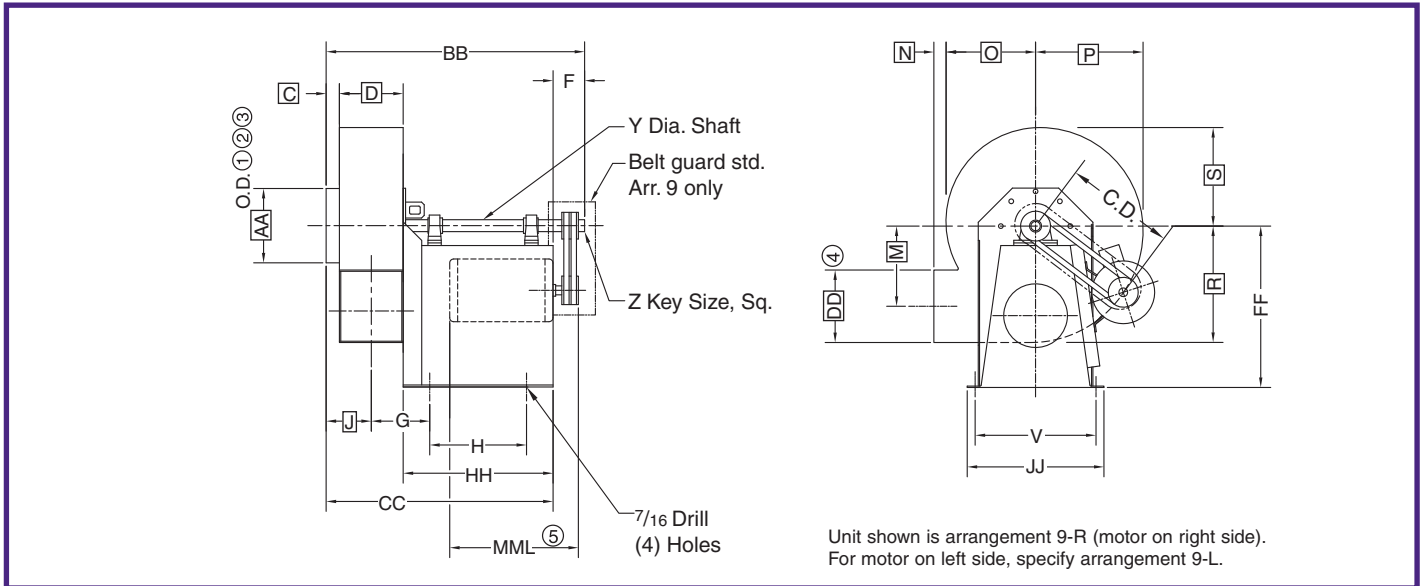




# DIMENSIONS and SPECIFICATIONS

## Arrangement #1 and #9, Belt Drive

NOTE: Arrangement 9 dimensions are the same as arrangement 1 with exception of dimensions C.D. and MML which are for arrangement 9 only.



**Note: For common boxed blower housing dimensions, see Page 14.**

DIMENSIONS IN INCHES ± 1/8

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL NO.	MOTOR FRAME	F	G	H	V	Y	Z	BB	CC	FF	HH	JJ	MML <sup>⑤</sup>
PBS-9	56-145T	3	4 <sup>5</sup> / <sub>16</sub>	10	11 <sup>3</sup> / <sub>8</sub>	3/4	3/16	23 <sup>5</sup> / <sub>8</sub>	20 <sup>5</sup> / <sub>8</sub>	14	15	12 <sup>7</sup> / <sub>8</sub>	15
PBS-10A	56-145T	3	4 <sup>1</sup> / <sub>2</sub>	10	11 <sup>3</sup> / <sub>8</sub>	3/4	3/16	24	21	14	15	12 <sup>7</sup> / <sub>8</sub>	15
PBS-12A ★	56-145T	4	4 <sup>13</sup> / <sub>16</sub>	10	11 <sup>3</sup> / <sub>8</sub>	1	1/4	25 <sup>5</sup> / <sub>8</sub>	21 <sup>5</sup> / <sub>8</sub>	14	15	12 <sup>7</sup> / <sub>8</sub>	15
	182T-215T			13	16			28 <sup>5</sup> / <sub>8</sub>	24 <sup>5</sup> / <sub>8</sub>	18	18	17 <sup>1</sup> / <sub>2</sub>	19
PBS-14A	56-215T	4	5 <sup>1</sup> / <sub>16</sub>	13	16	1 <sup>7</sup> / <sub>16</sub>	3/8	29 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>8</sub>	18	18	17 <sup>1</sup> / <sub>2</sub>	19
PBS-15A ★	182T-215T	4	5 <sup>7</sup> / <sub>16</sub>	13	16	1 <sup>7</sup> / <sub>16</sub>	3/8	29 <sup>7</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub>	18	18	17 <sup>1</sup> / <sub>2</sub>	19
	254T-256T			19 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>16</sub>		36 <sup>3</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>8</sub>	23	24 <sup>1</sup> / <sub>2</sub>	19	26
PBS-18 ★	182T-215T	4	5 <sup>1</sup> / <sub>8</sub>	13	16	1 <sup>7</sup> / <sub>16</sub>	3/8	29 <sup>1</sup> / <sub>4</sub>	25 <sup>1</sup> / <sub>4</sub>	18	18	17 <sup>1</sup> / <sub>2</sub>	19
	254T-256T			19 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>16</sub>		35 <sup>3</sup> / <sub>4</sub>	31 <sup>3</sup> / <sub>4</sub>	23	24 <sup>1</sup> / <sub>2</sub>	19	26
PBS-18WA ★	182T-215T	4	5 <sup>7</sup> / <sub>8</sub>	13	16	1 <sup>7</sup> / <sub>16</sub>	3/8	30 <sup>3</sup> / <sub>4</sub>	26 <sup>3</sup> / <sub>4</sub>	18	18	17 <sup>1</sup> / <sub>2</sub>	19
	254T-286T			6	19 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>4</sub>		1 <sup>11</sup> / <sub>16</sub>	39 <sup>1</sup> / <sub>4</sub>	33 <sup>1</sup> / <sub>4</sub>	23	24 <sup>1</sup> / <sub>2</sub>	19

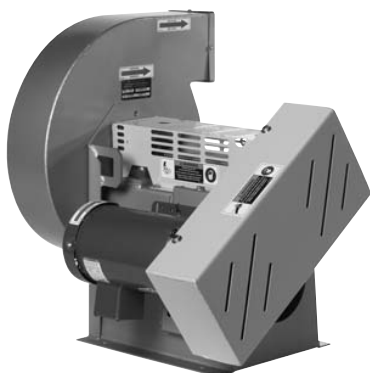
④ Discharge flange not available for some discharge positions. See page 19.

⑤ "MML" is the maximum motor length for a customer supplied motor. The motor manufacturers "C" dimension cannot exceed the "MML" dimension.

★ All arrangement 1 units use the small base dimensions.

### C.D. BELT CENTER DISTANCE (Dimensions in Inches)

MODEL NO.	MOTOR FRAME SIZE									
	56-145T		182T-184T		213T-215T		254T-256T		284T-286T	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
PBS-9	10 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>								
PBS-10A	10 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>								
PBS-12A	10 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>				
PBS-14A	12	13	13 <sup>5</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>				
PBS-15A			13 <sup>5</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>	17	18 <sup>5</sup> / <sub>8</sub>		
PBS-18			13 <sup>5</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>	17	18 <sup>5</sup> / <sub>8</sub>		
PBS-18WA			13 <sup>5</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>	17	18 <sup>5</sup> / <sub>8</sub>	17 <sup>3</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>4</sub>

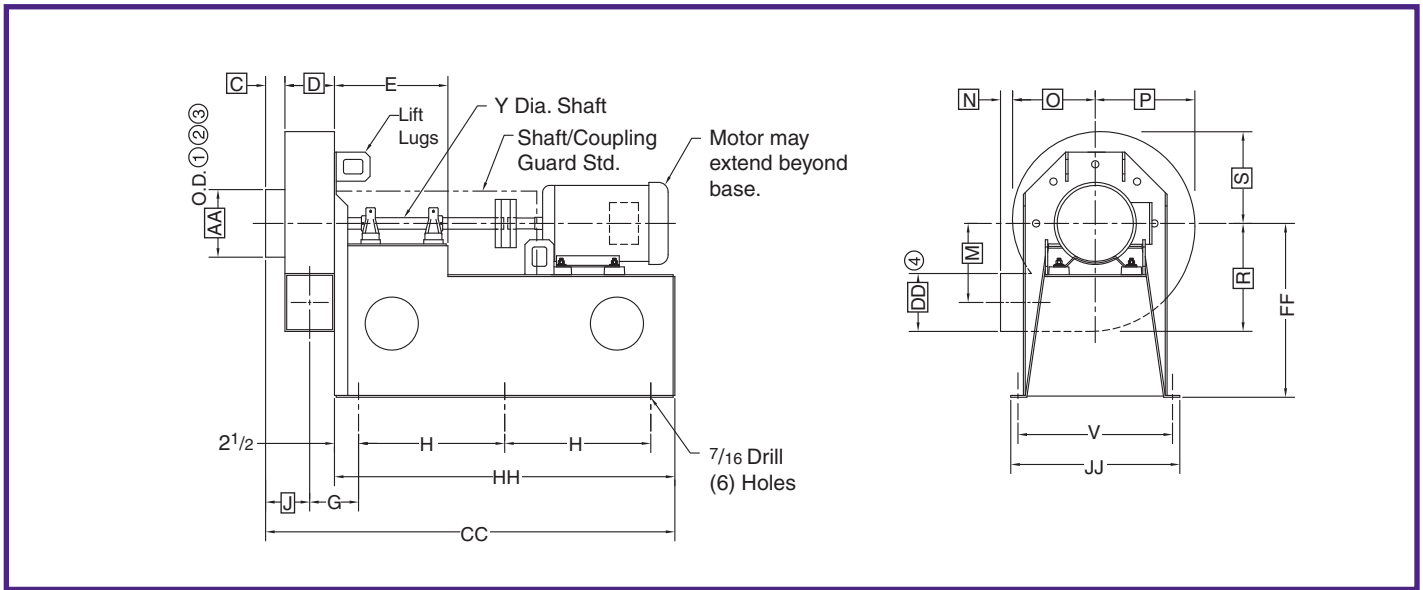


Discharge guard and shaft guard optional.



# DIMENSIONS and SPECIFICATIONS

## Arrangement #8, Direct Connected



**Note: For common boxed blower housing dimensions, see Page 14.**

DIMENSIONS IN INCHES ± 1/8"

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL NO.	MOTOR FRAME	E	G	H	V	Y	CC	FF	HH	JJ
PBS-9	56-145T	10 <sup>3</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>8</sub>	3/4	35 <sup>1</sup> / <sub>8</sub>	14	29 <sup>1</sup> / <sub>2</sub>	12 <sup>7</sup> / <sub>8</sub>
PBS-10A	56-145T	10 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>8</sub>	3/4	35 <sup>1</sup> / <sub>2</sub>	14	29 <sup>1</sup> / <sub>2</sub>	12 <sup>7</sup> / <sub>8</sub>
PBS-12A	56-145T	10 <sup>3</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>8</sub>	1	36 <sup>1</sup> / <sub>8</sub>	14	29 <sup>1</sup> / <sub>2</sub>	12 <sup>7</sup> / <sub>8</sub>
	182T-215T	11 <sup>3</sup> / <sub>4</sub>		15 <sup>1</sup> / <sub>8</sub>	16		41 <sup>7</sup> / <sub>8</sub>	18	35 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>
PBS-14A	56-145T	10 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	36 <sup>5</sup> / <sub>8</sub>	14	29 <sup>1</sup> / <sub>2</sub>	12 <sup>7</sup> / <sub>8</sub>
	182T-215T	11 <sup>3</sup> / <sub>4</sub>		15 <sup>1</sup> / <sub>8</sub>	16		42 <sup>3</sup> / <sub>8</sub>	18	35 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>
PBS-15A	182T-215T	11 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>8</sub>	16	1 <sup>3</sup> / <sub>16</sub>	43 <sup>1</sup> / <sub>8</sub>	18	35 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>
	254T-256T			18 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>4</sub>		50 <sup>3</sup> / <sub>8</sub>	23	42 <sup>1</sup> / <sub>2</sub>	19
PBS-18	182T-215T	11 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	16	1 <sup>3</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>2</sub>	18	35 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>
	254T-256T			18 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	49 <sup>3</sup> / <sub>4</sub>	23	42 <sup>1</sup> / <sub>2</sub>	19
PBS-18WA	182T-215T	11 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	16	1 <sup>7</sup> / <sub>16</sub>	44	18	35 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>
	254T-286T			18 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>4</sub>		51 <sup>1</sup> / <sub>4</sub>	23	42 <sup>1</sup> / <sub>2</sub>	19

- ① PBS-14A also available with 6" and 8" inlets.
- ② PBS-15A and PBS-18 also available with 6" and 10" inlets.
- ③ PBS-18WA also available with 8" inlet.
- ④ Discharge flange not available for some discharge positions.  
See page 19.

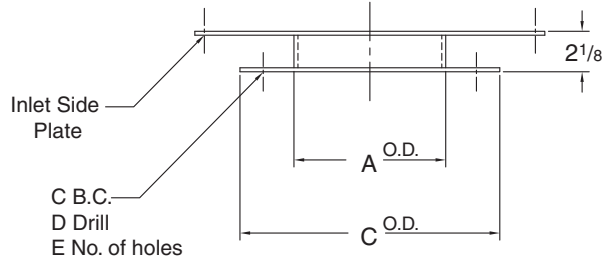


Shaft/coupling guard is standard.



# DIMENSIONS and SPECIFICATIONS

## Inlet Flange Dimensions (See all notes below.)



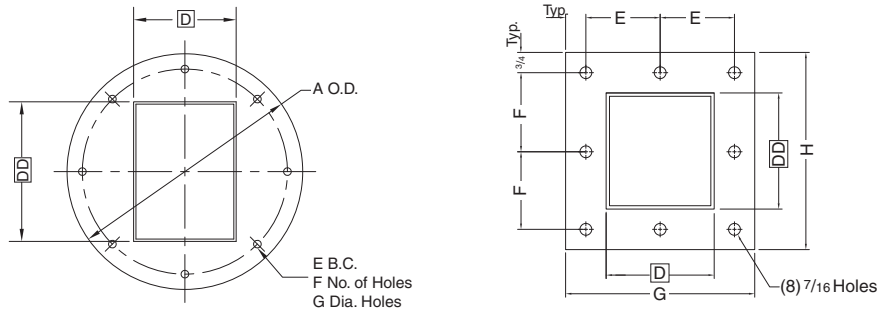
Fan Inlet Diameter AA Dim.	A	B	C	Drilling Pattern (See Note 2)			
				CFV Std.		ANSI Std.	
				D	E	D	E
4 <sup>15</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	10	7 <sup>7</sup> / <sub>16</sub>	4	7 <sup>7</sup> / <sub>8</sub>	8
5 <sup>15</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	11	7 <sup>7</sup> / <sub>16</sub>	4	7 <sup>7</sup> / <sub>8</sub>	8
6 <sup>15</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	11	7 <sup>7</sup> / <sub>16</sub>	8	7 <sup>7</sup> / <sub>8</sub>	8
7 <sup>15</sup> / <sub>16</sub>	7 <sup>15</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>16</sub>	8	7 <sup>7</sup> / <sub>8</sub>	8
9 <sup>15</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>4</sub>	16	7 <sup>7</sup> / <sub>16</sub>	8	1	12

Dimensions in inches. Subject to change without notice.

### NOTES:

- Flanges are **NOT** drilled unless specified on order. All flanges are 10 gauge steel (about 1/8" thick).
- If inlet flange is to be drilled, specify the following:
  - Drill per **CFV Standard** or **ANSI Standard**.
  - If drilling per CFV Standard, specify if holes are to be on centers or straddle centers. If drilling per ANSI Standard, holes always straddle centers.
- If inlet flange and a round discharge flange are both ordered, the O.D. of the discharge flange **WILL** extend past the face of the inlet flange. (See Note 4).
- If inlet flange and a rectangular discharge flange are both ordered, the "G" dimension of the discharge flange will **NOT** extend past the face of the inlet flange.

## Discharge Flange Dimensions (See all notes below.)



MODEL	ROUND FLANGE (See Notes 8 & 9)							RECTANGULAR FLANGE			
	A	DRILLING PATTERN						CFV STD. DRILLING			
		CFV STD.			ANSI STD.			(See Note 10)			
		E	F	G	E	F	G	E	F	G	H
PBS-9	9	7 <sup>1</sup> / <sub>2</sub>	4	7 <sup>7</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	8	3 <sup>3</sup> / <sub>4</sub>	2 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	7
PBS-10A	10	8 <sup>1</sup> / <sub>2</sub>	4	7 <sup>7</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	8	7 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>15</sup> / <sub>16</sub>	7	7 <sup>3</sup> / <sub>8</sub>
PBS-12A	11	9 <sup>1</sup> / <sub>2</sub>	4	7 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	8	7 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>
PBS-14A	11	9 <sup>1</sup> / <sub>2</sub>	4	7 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	8	7 <sup>7</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>8</sub>	9
PBS-15A	13 <sup>1</sup> / <sub>2</sub>	11 <sup>3</sup> / <sub>4</sub>	8	7 <sup>7</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>4</sub>	8	7 <sup>7</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	8 <sup>7</sup> / <sub>8</sub>	11
PBS-18	11	9 <sup>1</sup> / <sub>2</sub>	4	7 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	8	7 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	9
PBS-18WA	13 <sup>1</sup> / <sub>2</sub>	11 <sup>3</sup> / <sub>4</sub>	8	7 <sup>7</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>4</sub>	8	7 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>4</sub>	10

NOTE 5. The "D" and "DD" dimensions in drawing above are the same as on page 14.

NOTE 6. Flanges are **NOT** drilled unless specified on order. All flanges are 10 gauge steel (about 1/8" thick).

NOTE 7. DISCHARGE FLANGE NOT AVAILABLE ON DOWNBLAST OR BOTTOM ANGULAR DOWN DISCHARGE POSITIONS

### ROUND FLANGES:

NOTE 8. If round discharge flange and inlet flange are both ordered, the O.D. of the discharge flange **WILL** extend past the face of the inlet flange.

NOTE 9. If discharge flange is to be drilled, specify the following:

- Drilling is to be per CFV Standard or ANSI Standard for round flange
- If drilling per CFV Std., specify if holes are to be on centers or straddle centers. If drilling per ANSI Standard, holes always straddle centers.

### RECTANGULAR FLANGES:

NOTE 10. If discharge flange is to be drilled, specify on order. If rectangular discharge flange is ordered with an inlet flange, it will **NOT** extend past the face of the inlet flange.