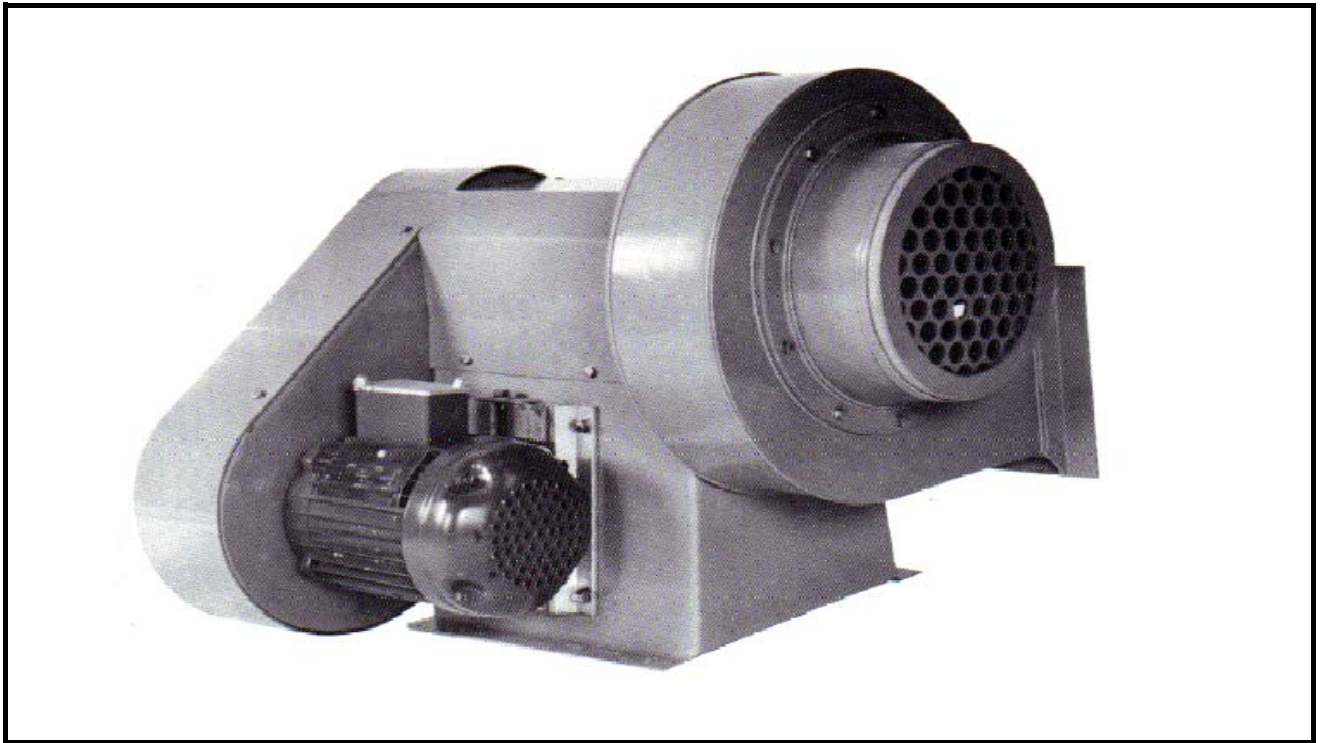


# **PVC AND FRP PUSH AND EXHAUST BLOWERS**



**VIRON®**  
**INTERNATIONAL**

**PVC AND FRP CENTRIFUGAL FANS**



**VPB-800 SERIES**



**VIRON<sup>®</sup>** International is a leading manufacturer of corrosion resistant PVC and FIBERGLASS push blowers. Our manufacturing facilities in Michigan and Texas operate the most modern equipment and efficient manpower found in the fan industry. Our PVC and FIBERGLASS push blowers are produced in 3 standard sizes with inlet diameters ranging from 6", 8", 10", allowing our blowers to produce volumes from 279 to 3624 CFM.

All **VIRON<sup>®</sup>** centrifugal fans are fabricated, assembled and tested in our two manufacturing locations. The testing begins with the fan wheels which are dynamically balanced. This electronic balancing guarantees smooth, vibration-free operation. After the wheel is balanced, it is assembled in the fan housing where it is tested at its operating speed. This second test uses the actual bearings, sheaves, belts, and motor. Here we fine tune the fan so that it operates as an efficient unit.

**STANDARD DESIGN PARAMETERS:**

1. High Efficiency
2. Easy maintenance
3. Minimum Operating Cost
4. Structural Integrity

All **VIRON<sup>®</sup>** centrifugal fans have been tested in accordance to AMCA Standard #210-67.

# SPECIFICATIONS

## PVC GENERAL SPECIFICATIONS

- Corrosion resistant PVC sheet plus flame additives reduce the flame spread below 25.
- All structural parts in the airstream are PVC.
- All internal hardware is stainless steel.
- The blower housing is solid PVC sheet using premium grade corrosion resistant material.
- The wheel is a steel wheel with PVC coating. The coating thickness varies from 40 to 100 MILS depending on the application. Also available is a fiberglass wheel. Performance with either wheel is identical. The radial wheel design offers efficient, low cost handling of industrial process air and gas.
- Maximum temperature limitation is 140°F on all PVC blowers.

## FRP GENERAL SPECIFICATIONS

- Corrosion resistant polyester resin plus flame additives reduce the flame spread rate below 25.
- All structural parts in the airstream are fiberglass and resin.
- All internal hardware is stainless steel.
- The blower housing is solid fiberglass using premium grade corrosion resistant material.
- The blower wheel is solid fiberglass using a premium grade corrosion resistant resin. The radial wheel design offers efficient, low cost handling of industrial process air or gas.
- Maximum temperature limitation is 200°F on all fiberglass blowers.
- Special high corrosion construction is optional on all **VIRON**<sup>®</sup> fiberglass air moving equipment.

## PVC AND FRP STANDARD SPECIFICATIONS

- **Size** - 6", 8", 10" diameter inlet, 3 convenient sizes to choose from giving you 279 to over 3624 CFM.
- **Motor** - All motors are TEFC type.
- **Belts** - All belts are industrial grade V-belt type.
- **Bearings** - All bearings are heavy duty, self aligning and ball bearing type.
- **Drain** - All blower housings have a 1" drain at the lowest point of the housing.
- **Hardware** - All hardware is stainless steel.
- **Wheels** - All blower wheels are dynamically balanced.
- **Pedestal Base** - All pedestal bases are constructed of heavy gauge steel. The trapezoid design insures smooth performance and structural integrity.

## OPTIONAL EQUIPMENT

MOTOR COVERS  
BELT GUARDS  
MOTOR SLIDING BASE  
VIBRATION ISOLATORS  
STACK CAPS  
316 STAINLESS STEEL SHAFT

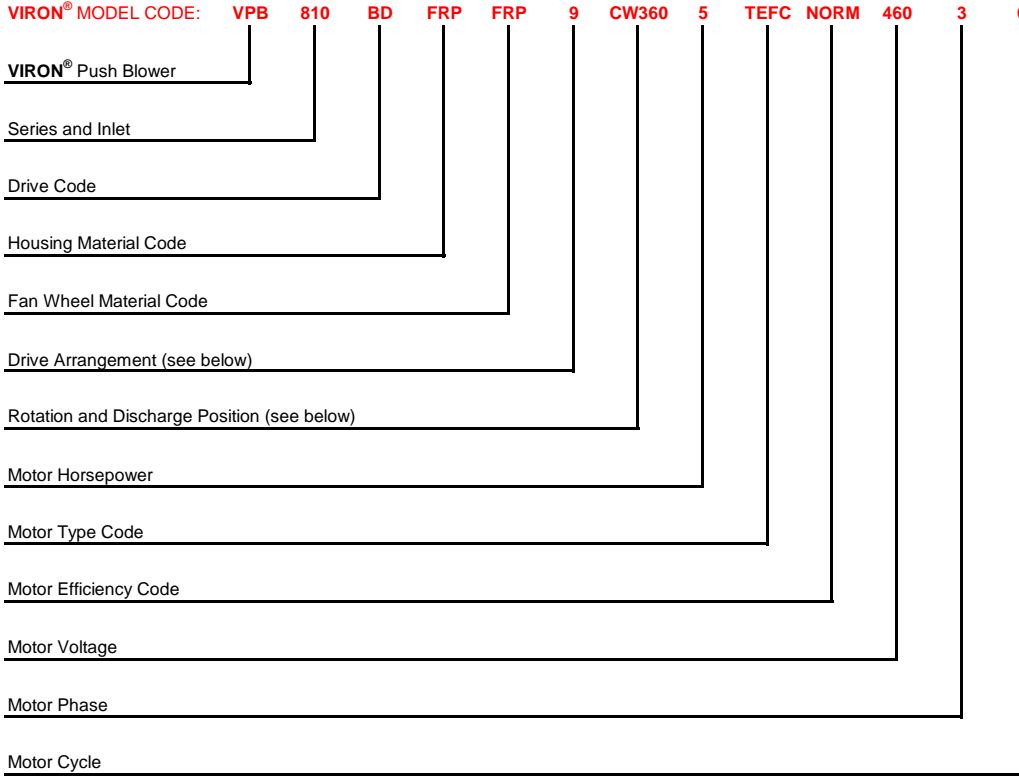
MOTORS:

*High Efficiency*  
*2 Speed*  
*Explosion Proof*  
*Chemical Duty*

LIFTING LUGS  
MOTOR SPEED CONTROLS

BELTS  
ACCESS DOORS  
FLEX CONNECTIONS  
ROOF CURBS  
CLASS III WHEELS  
DRIVE SHEAVES: *Fixed*  
*Adjustable*  
INLET FLANGES  
ELECTRICALLY GROUNDED CARBON RICH RESIN  
DISCONNECT SWITCH  
STARTER

# SELECTION GUIDE



### HOUSING MATERIAL CODE

Fiberglass	FRP
Polyvinyl Chloride	PVC
Polypropylene	PP

### FAN WHEEL MATERIAL CODE

FIBERGLASS	FRP
Steel With Polyvinyl Chloride Coated	PVC
Steel With Kynar Coated	KYN
Stainless Steel	SST

### DRIVE CODE

Direct Drive	DD
Belt Drive	BD

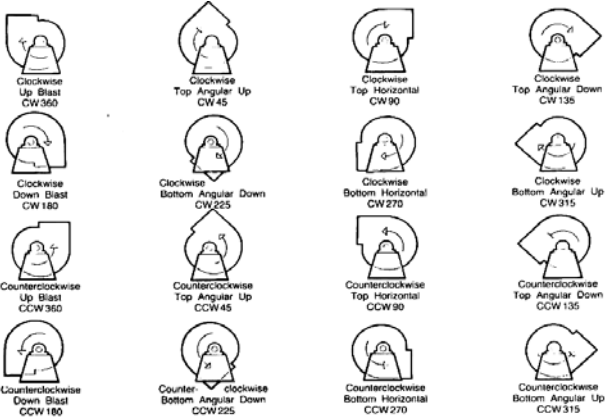
### MOTOR TYPE CODE

Totally Enclosed Fan Cooled	TEFC
Open Drip Proof	OPEN
Explosion Proof	EXPL
Chemical Duty	CHEM

### MOTOR EFFICIENCY CODE

Normal Efficiency	NORM
High Efficiency	HIGH

## ROTATION AND DISCHARGE FOR CENTRIFUGAL FANS



## DRIVE ARRANGEMENTS FOR CENTRIFUGAL FANS

### Single Width

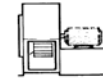


**ARR. 1 SWSI.** For belt drive or direct connection. Impeller overhung. Two bearings on base.



**ARR. 4 SWSI.** For direct drive. Impeller overhung on prime mover shaft. No bearings on fan. Prime mover base mounted or integrally directly connected.

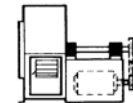
### Single Inlet



**ARR. 8 SWSI.** For belt drive or direct connection. Arrangement 1 plus extended base for prime mover.



**ARR. 9 SWSI.** For belt drive. Impeller overhung. Two bearings with prime mover outside base.



**ARR. 10 SWSI.** For belt drive. Impeller overhung. Two bearings with prime mover inside base.

1. Direction of rotation is determined from drive side of fan.
2. On single inlet fans, drive side is always considered as the side opposite fan inlet.

WHEEL DIAMETER = 10-1/2"

INLET 6"Ø ID

TIP SPEED = RPM X 2.74

**VPB-806**

INLET AND OUTLET AREA = 0.196 SQ. F OUTLET 4-7/16" X 6-3/4"

MAX. RPM = 5450

Volume of Air	Outlet Velocity Ft./M	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
279	1500	<b>1343</b>	<b>.09</b>	1790	.16	2150	.25	2457	.33	2735	.42	2988	.51	3224	.61	3442	.71
325	1750	1398	.11	1829	.19	2181	.28	2481	.38	2753	.48	3004	.58	3236	.69	3453	.79
372	2000	1458	.13	<b>1873</b>	<b>.23</b>	2217	.33	2511	.43	2779	.54	3026	.65	3256	.77	3469	.89
418	2250	1525	.16	1924	.26	2259	.37	2548	.49	2813	.61	3054	.73	3280	.85	3491	.98
465	2500	1598	.19	1980	.30	<b>2306</b>	<b>.42</b>	2590	.55	2850	.68	3087	.81	3310	.94	3517	1.08
512	2750	1678	.23	2041	.35	2357	.48	<b>2637</b>	<b>.61</b>	2891	.75	3124	.89	3342	1.04	3546	1.19
558	3000	1761	.27	2108	.40	2413	.54	2686	.68	<b>2936</b>	<b>.83</b>	3164	.98	3379	1.14	3580	1.30
605	3250	1848	.32	2178	.46	2471	.61	2739	.76	2984	.92	3208	1.08	3419	1.24	3617	1.41
651	3500	1937	.38	2253	.53	2536	.68	2795	.84	3035	1.01	<b>3254</b>	<b>1.18</b>	3462	1.36	3657	1.53
698	3750	2029	.44	2331	.60	2603	.76	2854	.93	3088	1.11	3303	1.29	<b>3508</b>	<b>1.47</b>	3701	1.66
744	4000	2122	.51	2413	.68	2673	.85	2917	1.03	3145	1.22	3356	1.41	3557	1.60	<b>3747</b>	<b>1.80</b>
791	4250	2217	.59	2497	.76	2747	.94	2982	1.14	3204	1.33	3411	1.53	3609	1.73	3796	1.94
837	4500	2312	.68	2583	.86	2824	1.05	3051	1.25	3267	1.45	3470	1.66	3664	1.87	3848	2.09
884	4750	2409	.78	2671	.97	2899	1.17	3122	1.37	3332	1.59	3531	1.80	3722	2.02	3902	2.25
931	5000	2507	.88	2761	1.09	2983	1.30	3197	1.51	3401	1.73	3595	1.95	3782	2.19	3960	2.42
977	5250	2606	1.00	2852	1.22	3069	1.43	3275	1.65	3472	1.88	3662	2.12	3844	2.36	4020	2.60
1024	5500	2706	1.13	2945	1.35	3156	1.58	3355	1.81	3546	2.05	3732	2.29	3910	2.54	4083	2.79
1070	5750	2806	1.27	3039	1.50	3245	1.74	3438	1.98	3623	2.22	3804	2.48	3978	2.73	4148	2.99
1117	6000	2907	1.42	3133	1.66	3335	1.91	3523	2.20	3702	2.41	3878	2.67	4050	2.94	4215	3.21
1163	6250	3009	1.58	3229	1.83	3426	2.09	3609	2.35	3783	2.61	3955	2.88	4123	3.16	4285	3.44
1210	6500	3111	1.75	3326	2.02	3518	2.29	3696	2.55	3866	2.82	4033	3.10	4198	3.39	4356	3.68
1256	6750	3214	1.94	3423	2.22	3611	2.50	3785	2.77	3950	3.05	4113	3.33	4274	3.63	4430	3.93
1303	7000	3318	2.14	3521	2.43	3705	2.72	3875	3.00	4036	3.29	4195	3.58	4352	3.89	4506	4.20
Volume of Air	Outlet Velocity Ft./M	9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
279	1500	3647	.81														
325	1750	3655	.91	3845	1.02												
372	2000	3669	1.01	3857	1.13	4041	1.25	4221	1.38	4391	1.50	4553	1.63	4862	1.90	5156	2.19
418	2250	3689	1.11	3875	1.24	4057	1.38	4235	1.51	4403	1.65	4563	1.79	4869	2.07	5162	2.38
465	2500	3712	1.22	3897	1.36	4077	1.51	4253	1.65	4419	1.80	4578	1.94	4880	2.25	5171	2.58
512	2750	3740	1.33	3923	1.49	4100	1.64	4275	1.79	4439	1.95	4596	2.11	4895	2.43	5184	2.78
558	3000	3771	1.45	3952	1.61	4128	1.78	4300	1.94	4463	2.11	4618	2.28	4914	2.62	5200	2.99
605	3250	3805	1.58	3984	1.75	4159	1.92	4330	2.10	4491	2.27	4644	2.45	4936	2.81	5220	3.20
651	3500	3843	1.71	4020	1.89	4192	2.07	4361	2.26	4521	2.44	4672	2.63	4962	3.01	5243	3.41
698	3750	3884	1.85	4058	2.04	4229	2.23	4396	2.42	4554	2.62	4704	2.82	4991	3.22	5270	3.64
744	4000	3928	1.99	4100	2.19	4269	2.39	4434	2.60	4590	2.80	4739	3.01	5023	3.44	5299	3.87
791	4250	<b>3974</b>	<b>2.15</b>	4145	2.35	4311	2.56	4475	2.78	4666	3.00	4777	3.22	5057	3.66	5332	4.11
837	4500	4024	2.31	<b>4192</b>	<b>2.52</b>	4357	2.75	4518	2.97	4672	3.20	4818	3.43	5096	3.89	5368	4.36
884	4750	4076	2.48	4243	2.70	<b>4405</b>	<b>2.94</b>	4563	3.17	4716	3.41	4861	3.65	5137	4.13	5406	4.62
931	5000	4131	2.65	4295	2.89	4455	3.14	<b>4611</b>	<b>3.38</b>	<b>4763</b>	<b>3.62</b>	4907	3.87	5180	4.37	5447	4.88
977	5250	4189	2.84	4350	3.09	4508	3.34	4662	3.60	4812	3.85	<b>4955</b>	<b>4.11</b>	5226	4.63		
1024	5500	4248	3.04	4408	3.30	4562	3.56	4714	3.83	4862	4.09	5004	4.36	<b>5273</b>	<b>4.89</b>		
1070	5750	4310	3.25	4467	3.52	4656	3.79	4769	4.06	4915	4.34	5056	4.61	5322	5.17		
1117	6000	4375	3.48	4529	3.75	4679	4.03	4825	4.31	4969	4.60	5110	4.88	5373	5.45		
1163	6250	4442	3.71	4593	3.99	4740	4.28	4883	4.57	5025	4.86	5165	5.16	5425	5.75		
1210	6500	4510	3.96	4659	4.25	4803	4.55	4943	4.85	5083	5.15	5222	5.45				
1256	6750	4581	4.23	4727	4.52	4868	4.83	5007	5.14	5143	5.44	5280	5.75				
1303	7000	4653	4.51	4796	4.82	4935	5.13	5071	5.44	5206	5.75	5340	6.07				

Bold Type indicates most efficient point of operation for each pressure.

All capacities based on standard air (density .075#/cu.ft. - 70°F - 29.92" Hg. Bar. )

# VPB-808

WHEEL DIAMETER = 14"

INLET 8"Ø ID

TIP SPEED = RPM X 3.66

INLET AND OUTLET AREA = 0.349 SQ. FT. OUTLET 5-7/8" X 9"

MAX. RPM = 4100

Volume of Air CFM	Outlet Velocity Ft./Min	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
496	1500	<b>1008</b>	<b>.16</b>	1343	.29	1613	.43	1843	.58	2052	.75	2241	.91	2419	1.08	2582	1.25
579	1750	1048	.19	1372	.34	1636	.50	1861	.67	2065	.85	2253	1.03	2428	1.22	2590	1.41
663	2000	1094	.23	<b>1405</b>	<b>.40</b>	1663	.58	1883	.77	2085	.96	2270	1.16	2442	1.37	2602	1.58
745	2250	1144	.28	1443	.47	1694	.66	1911	.87	2110	1.08	2291	1.30	2461	1.52	2618	1.75
828	2500	1199	.34	1485	.54	<b>1729</b>	<b>.75</b>	1943	.98	2138	1.21	2316	1.44	2482	1.68	2638	1.92
911	2750	1258	.40	1531	.62	1768	.85	<b>1978</b>	<b>1.09</b>	2169	1.34	2343	1.59	2507	1.85	2660	2.11
994	3000	1321	.48	1581	.71	1810	.96	2015	1.22	<b>2202</b>	<b>1.48</b>	2374	1.75	2534	2.03	2685	2.31
1077	3250	1386	.57	1634	.82	1854	1.08	2055	1.35	2238	1.63	2406	1.92	2564	2.21	2713	2.51
1159	3500	1453	.67	1690	.93	1902	1.21	2097	1.50	2276	1.80	<b>2441</b>	<b>2.10</b>	2596	2.41	2743	2.73
1242	3750	1522	.79	1749	1.06	1952	1.35	2141	1.66	2317	1.97	2478	2.29	<b>2631</b>	<b>2.62</b>	2776	2.96
1326	4000	1592	.91	1810	1.20	2005	1.51	2188	1.83	2359	2.17	2517	2.50	2668	2.85	<b>2810</b>	<b>3.20</b>
1408	4250	1663	1.06	1873	1.36	2061	1.68	2237	2.02	2404	2.37	2559	2.72	2707	3.08	2847	3.45
1491	4500	1735	1.21	1937	1.53	2118	1.87	2288	2.23	2450	2.58	2603	2.96	2748	3.33	2886	3.72
1574	4750	1807	1.38	2003	1.73	2175	2.08	2342	2.45	2500	2.82	2649	3.21	2792	3.60	2927	4.00
1657	5000	1880	1.57	2071	1.94	2238	2.31	2398	2.68	2551	3.08	2697	3.48	2837	3.89	2970	4.30
1740	5250	1955	1.78	2139	2.16	2302	2.55	2456	2.94	2604	3.35	2747	3.77	2883	4.20	3015	4.62
1823	5500	2029	2.01	2209	2.41	2368	2.81	2517	3.21	2660	3.64	2799	4.08	2933	4.52	3062	4.96
1905	5750	2105	2.25	2279	2.67	2434	3.09	2579	3.52	2717	3.96	2853	4.41	2984	4.86	3111	5.32
1989	6000	2181	2.52	2350	2.96	2502	3.39	2642	3.91	2777	4.29	2909	4.76	3038	5.23	3162	5.71
2071	6250	2257	2.81	2422	3.27	2570	3.72	2707	4.18	2838	4.64	2966	5.13	3092	5.62	3214	6.12
2154	6500	2334	3.12	2494	3.59	2639	4.07	2772	4.54	2900	5.02	3025	5.52	3148	6.03	3268	6.55
2237	6750	2411	3.45	2568	3.95	2709	4.44	2839	4.93	2963	5.43	3085	5.94	3206	6.47	3323	7.00
2320	7000	2488	3.81	2641	4.32	2779	4.84	2906	5.35	3027	5.86	3146	6.38	3264	6.93	3380	7.47
Volume of Air CFM	Outlet Velocity Ft./Min	9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
496	1500	2736	1.44														
579	1750	2742	1.61	2884	1.81												
663	2000	2752	1.79	2893	2.01	3031	2.23	3166	2.45	3294	2.67	3415	2.90	3647	3.38	3867	3.89
745	2250	2767	1.98	2907	2.21	3043	2.45	3176	2.69	3303	2.93	3423	3.18	3652	3.69	3871	4.23
828	2500	2784	2.17	2923	2.42	3058	2.68	3190	2.94	3315	3.20	3434	3.46	3660	4.01	3879	4.58
911	2750	2805	2.38	2942	2.64	3076	2.92	3206	3.19	3330	3.47	3447	3.75	3672	4.33	3888	4.94
994	3000	2828	2.59	2964	2.87	3096	3.16	3226	3.46	3348	3.75	3464	4.05	3686	4.66	3900	5.31
1077	3250	2854	2.81	2988	3.11	3119	3.42	3247	3.73	3368	4.05	3483	4.36	3703	5.01	3915	5.69
1159	3500	2882	3.04	3015	3.36	3145	3.69	3271	4.02	3391	4.35	3505	4.68	3722	5.36	3933	6.08
1242	3750	2913	3.29	3044	3.62	3172	3.97	3297	4.32	3416	4.66	3529	5.01	3743	5.73	3953	6.48
1326	4000	2946	3.55	3075	3.9	3202	4.26	3326	4.62	3443	4.99	3555	5.36	3767	6.12	3975	6.89
1408	4250	<b>2981</b>	<b>3.82</b>	3109	4.19	3234	4.56	3356	4.95	3500	5.33	3583	5.73	3793	6.51	3999	7.32
1491	4500	3018	4.10	<b>3145</b>	<b>4.49</b>	3268	4.89	3389	5.29	3504	5.69	3614	6.10	3822	6.92	4026	7.76
1574	4750	3057	4.41	3182	4.81	<b>3304</b>	<b>5.23</b>	3423	5.65	3538	6.06	3646	6.49	3853	7.34	4055	8.22
1657	5000	3098	4.72	3222	5.15	3342	5.58	<b>3459</b>	6.02	<b>3573</b>	<b>6.45</b>	3680	6.90	3886	7.79	4085	8.69
1740	5250	3142	5.06	3263	5.51	3381	5.95	3497	6.41	3609	6.86	<b>3716</b>	<b>7.32</b>	3920	8.25		
1823	5500	3187	5.41	3306	5.88	3422	6.34	3536	6.81	3647	7.29	3754	7.76	<b>3955</b>	<b>8.71</b>		
1905	5750	3233	5.79	3351	6.26	3492	6.74	3577	7.23	3686	7.73	3792	8.21	3992	9.20		
1989	6000	3282	6.19	3397	6.67	3509	7.17	3619	7.68	3727	8.18	3833	8.69	4030	9.71		
2071	6250	3332	6.61	3445	7.11	3555	7.62	3663	8.14	3769	8.66	3874	9.18	4069	10.24		
2154	6500	3383	7.06	3495	7.56	3602	8.09	3708	8.63	3813	9.16	3917	9.70				
2237	6750	3436	7.53	3545	8.05	3651	8.59	3756	9.14	3858	9.69	3960	10.25				
2320	7000	3490	8.02	3597	8.57	3702	9.12	3804	9.68	3905	10.25	4005	10.81				

Bold Type indicates most efficient point of operation for each pressure.

All capacities based on standard air (density .075#/cu.ft. - 70°F - 29.92" Hg. Bar. )

WHEEL DIAMETER = 17-1/2"

INLET 10"Ø ID

TIP SPEED = RPM X 4.58

**VPB-810**

INLET AND OUTLET AREA = 0.545 SQ. FT.

OUTLET 7-1/8" X 12"

MAX. RPM = 3600

Volume of Air CFM	Outlet Velocity Ft./Min	1" SP		2" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
776	1500	806	.24	1074	.45	1291	.68	1475	.91	1642	1.16	1793	1.41				
905	1750	839	.30	1098	.54	1309	.79	1489	1.05	1653	1.32	1803	1.61	1943	1.90	2072	2.20
1035	2000	875	.36	<b>1124</b>	<b>.63</b>	1331	.91	1507	1.20	1668	1.50	1816	1.81	1954	2.13	2082	2.46
1164	2250	916	.44	1155	.73	1356	1.03	1529	1.35	1688	1.68	1833	2.02	1969	2.37	2095	2.73
1293	2500	959	.53	1188	.84	<b>1384</b>	<b>1.17</b>	1555	1.52	1710	1.88	1853	2.25	1986	2.62	2111	3.00
1423	2750	1007	.63	1225	.97	1415	1.33	<b>1583</b>	<b>1.70</b>	1735	2.09	1875	2.48	2006	2.89	2129	3.29
1553	3000	1057	.75	1265	1.11	1448	1.50	1612	1.90	<b>1762</b>	<b>2.31</b>	1899	2.73	2028	3.16	2149	3.60
1682	3250	1109	.89	1307	1.28	1483	1.69	1644	2.11	1791	2.55	1926	3.00	2052	3.46	2171	3.92
1811	3500	1163	1.05	1352	1.46	1522	1.89	1678	2.33	1822	2.80	<b>1953</b>	<b>3.28</b>	2078	3.77	2195	4.26
1940	3750	1218	1.23	1399	1.65	1562	2.11	1713	2.59	1854	3.08	1983	3.58	<b>2105</b>	<b>4.09</b>	2221	4.62
2071	4000	1274	1.42	1448	1.88	1605	2.35	1751	2.86	1888	3.38	2014	3.90	2135	4.44	<b>2249</b>	<b>4.99</b>
2200	4250	1331	1.65	1498	2.12	1649	2.62	1790	3.16	1923	3.70	2048	4.25	2166	4.81	2278	5.39
2329	4500	1388	1.89	1550	2.39	1695	2.92	1831	3.47	1961	4.04	2083	4.62	2199	5.21	2309	5.81
2458	4750	1446	2.16	1603	2.69	1740	3.24	1874	3.82	2000	4.41	2120	5.01	2234	5.63	2342	6.25
2588	5000	1505	2.45	1657	3.02	1791	3.60	1919	4.19	2041	4.81	2158	5.43	2270	6.07	2377	6.72
2717	5250	1564	2.78	1712	3.38	1842	3.98	1966	4.59	2084	5.23	2198	5.89	2307	6.55	2413	7.22
2847	5500	1624	3.14	1767	3.76	1895	4.38	2014	5.02	2128	5.69	2240	6.37	2347	7.05	2450	7.75
2976	5750	1684	3.52	1824	4.17	1948	4.83	2064	5.49	2174	6.18	2283	6.89	2388	7.59	2490	8.31
3106	6000	1745	3.93	1881	4.62	2002	5.30	2114	6.10	2222	6.69	2328	7.42	2431	8.16	2530	8.91
3235	6250	1806	4.38	1938	5.10	2056	5.81	2166	6.52	2271	7.25	2374	8.01	2475	8.77	2572	9.55
3364	6500	1867	4.87	1996	5.61	2112	6.35	2218	7.09	2320	7.84	2421	8.62	2519	9.41	2615	10.22
3494	6750	1929	5.39	2055	6.16	2167	6.93	2272	7.70	2371	8.48	2469	9.27	2565	10.10	2659	10.93
3624	7000	1991	5.95	2113	6.75	2224	7.55	2326	8.35	2422	9.15	2518	9.96	2612	10.81	2705	11.67
Volume of Air CFM	Outlet Velocity Ft./Min	9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
776	1500																
905	1750	2194	2.51	2308	2.83												
1035	2000	2202	2.79	2315	3.14	2426	3.48	2533	3.82	2636	4.17	2733	4.53	2918	5.28	3095	6.07
1164	2250	2214	3.09	2326	3.45	2435	3.82	2542	4.20	2643	4.57	2739	4.96	2922	5.76	3098	6.61
1293	2500	2228	3.39	2339	3.78	2447	4.18	2553	4.59	2653	4.99	2748	5.40	2929	6.26	3104	7.16
1423	2750	2245	3.71	2354	4.13	2461	4.55	2566	4.98	2665	5.42	2759	5.86	2938	6.77	3111	7.72
1553	3000	2263	4.04	2372	4.48	2478	4.93	2581	5.40	2679	5.86	2772	6.33	2950	7.28	3121	8.3
1682	3250	2284	4.38	2391	4.85	2496	5.34	2599	5.83	2695	6.32	2787	6.81	2963	7.82	3133	8.89
1811	3500	2307	4.75	2413	5.24	2516	5.76	2618	6.27	2714	6.79	2804	7.31	2978	8.37	3147	9.49
1940	3750	2331	5.14	2436	5.66	2538	6.19	2639	6.74	2733	7.28	2824	7.83	2995	8.95	3163	10.11
2071	4000	2357	5.54	2461	6.09	2562	6.65	2661	7.22	2755	7.79	2845	8.37	3015	9.55	3181	10.76
2200	4250	<b>2385</b>	<b>5.96</b>	2488	6.54	2588	7.13	2686	7.72	2801	8.33	2867	8.94	3036	10.17	3200	11.43
2329	4500	2415	6.41	<b>2516</b>	<b>7.02</b>	2615	7.63	2712	8.26	2804	8.89	2892	9.52	3059	10.80	3222	12.12
2458	4750	2447	6.88	2547	7.52	<b>2644</b>	<b>8.16</b>	2739	8.81	2831	9.47	2918	10.13	3083	11.47	3245	12.83
2588	5000	2479	7.38	2578	8.05	2674	8.72	<b>2768</b>	<b>9.39</b>	<b>2859</b>	<b>10.07</b>	2945	10.77	3109	12.16	3269	13.57
2717	5250	2514	7.90	2611	8.60	2706	9.29	2798	10.00	2888	10.71	<b>2974</b>	<b>11.43</b>	3137	12.87	3295	14.32
2847	5500	2550	8.45	2646	9.17	2738	9.90	2829	10.64	2919	11.38	3004	12.12	<b>3165</b>	<b>13.61</b>	3321	15.11
2976	5750	2587	9.04	2681	9.78	2795	10.53	2862	11.29	2950	12.07	3035	12.83	3195	14.37	<b>3348</b>	<b>15.93</b>
3106	6000	2626	9.66	2719	10.42	2808	11.20	2896	11.99	2983	12.78	3067	13.57	3225	15.16	3377	16.79
3235	6250	2666	10.32	2757	11.10	2845	11.89	2931	12.71	3016	13.52	3100	14.34	3256	15.99	3406	17.68
3364	6500	2707	11.02	2797	11.81	2883	12.64	2967	13.47	3051	14.31	3134	15.15	3288	16.85	3436	18.59
3494	6750	2750	11.75	2837	12.57	2922	13.41	3005	14.28	3087	15.13	3169	16.00	3322	17.75	3466	19.54
3624	7000	2793	12.53	2879	13.39	2962	14.25	3044	15.12	3125	16.00	3205	16.88	3355	18.67	3497	20.53

Bold Type indicates most efficient point of operation for each pressure.

All capacities based on standard air (density .075#/cu.ft. - 70°F - 29.92" Hg. Bar. )

# PVC CORROSION TABLE

This table may be used as a guide for ventilating gases and vapors from processes where chemicals shown are used.  
Maximum temperatures shown.

ENVIRONMENT	Type I	Type I	Type II	Type II	ENVIRONMENT	Type I	Type I	Type II	Type II	ENVIRONMENT	Type I	Type I	Type II	Type II
	70°	140°	70°	140°		70°	140°	70°	140°		70°	140°	70°	140°
<b>ACIDS</b>					<b>ALKALIES</b>					<b>SALTS (cont'd.)</b>				
Acetic 20-30%	E	G	G	L	Ammonium Bifluoride	E	E	E	E	Sodium Ferricyanide	E	E	E	E
acetic 30-60%	E	E	G	L	Ammonium Carbonate	E	E	E	E	Sodium Fluoride	E	E	E	E
Benzene	U	U	U	U	Ammonium Fluoride 25%	E	L	U	U	Sodium Nitrate	E	E	E	E
Benzene Sulfonic 10%	E	E	E	E	Ammonium Hydroxide 28%	E	E	E	E	Sodium Nitrite	E	E	E	E
Benzoic	E	E	E	E	Barium Carbonate	E	E	E	E	Sodium Sulfate	E	E	E	E
Boric	E	E	E	E	Calcium Hydroxide	E	E	E	E	Sodium Sulfite	E	E	E	E
Butyric 20%	G	U	L	U	Magnesium Carbonate	E	E	E	E	Stannic Chloride	E	E	E	E
Carbonic	E	E	E	E	Potassium Bicarbonate	E	E	E	E	Stannous Chloride	E	G	E	G
Chloracetic	E	L	E	U	Potassium Carbonate	E	E	E	E	Zinc Chloride	E	E	E	E
Chromic 10%	E	E	E	E	Potassium Hydroxide					Zinc Nitrate	E	E	E	E
Chromic 25%	E	L	G	L	10, 20, 35%	E	E	E	E	Zinc Sulfate	E	E	E	E
Citric	E	E	E	E	Sodium Bicarbonate	E	E	E	E					
Fluoroboric	E	E	E	E	Sodium Carbonate	E	E	E	E	<b>SOLVENTS</b>				
Fluorosilicic	E	E	E	E	Sodium Hydroxide 10, 35%	E	E	E	E	Acetone	U	U	U	U
Formic	E	U	E	U	Sodium Sulfide	E	E	E	E	Benzene	U	U	U	U
Glucose	E	E	E	E	Trisodium Phosphate	E	E	E	E	Carbon Bisulfide	U	U	U	U
Hydrobromic 20%	E	E	E	G					Carbon Tetrachloride	L	U	U	U	
Hydrochloric 0-25%	E	G	E	G	<b>SALTS</b>				Chlorobenzene	U	U	U	U	
Hydrochloric 25-40%	E	E	E	G	Aluminum Chloride	E	E	E	E	Ethyl Acetate	U	U	U	U
Hydrocyanic	E	E	E	E	Aluminum Nitrate	E	E	E	E	Ethyl Chloride	U	U	U	U
Hydrofluoric 10%	E	L	E	G	Aluminum Sulfate	E	E	E	E	Ethylene Glycol	E	E	E	E
Hydrofluorosilicic 30%	E	G	G	L	Ammonium Chloride	E	E	E	E	Heptane	E	G	L	U
Hypochlorous 20%	E	E	E	E	Ammonium Nitrate	E	E	E	E	Hexane	E	L	U	U
Lactic 28%	E	E	E	E	Ammonium Persulfate	E	E	E	E	Methyl Ethyl Ketone	U	U	U	U
Maleic	E	E	E	E	Ammonium Sulfate	E	E	E	E	Naphtha	E	E	E	G
Nitric 10, 35, 40%	E	G	G	L	Aniline	U	U	U	U	Trichloroethylene	U	U	U	U
Nitric 20%	E	L	G	L	Aniline Sulfate, saturated	U	U	U	U	Toluene	U	U	U	U
Nitric (vapor) 60%	E	L	G	U	Antimony Trichloride	E	E	E	E	Xylene	U	U	U	U
Nitrous Oxide	E	E	E	E	Barium Chloride	E	E	E	E					
Oleic	E	E	E	E	Barium Sulfide	E	E	E	E	<b>BLEACHES</b>				
Oxalic	E	E	E	G	Calcium Chlorate	E	E	E	E	Calcium Chlorate	E	E	E	E
Perchloric 10%	E	L	G	L	Calcium Chloride	E	E	E	E	Calcium Hypochlorite	E	E	E	E
Phosphoric 0-25%	E	G	E	G	Calcium Sulfate	E	E	E	E	Chlorine Water	E	E	E	E
Phosphoric 25-75%	E	E	E	G	Copper Chloride	E	E	E	E	Hydrogen Peroxide 30%	E	E	E	G
Phosphorus (yellow)	E	G	G	L	Copper Cyanide	E	E	E	E	Hydrogen Peroxide 50%	E	E	E	L
Picric	U	U	U	U	Copper Fluoride 2%	E	E	E	E	Sodium Chlorate	E	G	G	L
Silicic	E	E	E	E	Copper Sulfate	E	E	E	E	Sodium Hypochlorite	E	E	E	E
Stearic	E	E	G	G	Ferric Chloride	E	E	E	E					
Sulfamic (See Benzene Sulfonic 10%)	E	E	E	E	Ferric Nitrate	E	E	E	E	<b>OTHERS</b>				
Sulfuric 0-75%	E	E	E	G	Ferric Sulfate	E	E	E	G	Aluminum Hydroxide	E	E	E	E
Sulfuric 75-90%	E	E	L	L	Ferrous Chloride	E	E	E	E	Ammonium Phosphate	E	E	-	-
Sulfuric 95%	E	G	U	U	Lead Acetate	E	E	E	E	Aqua Regia	E	L	L	U
Sulfurous	E	E	E	E	Magnesium Chloride	E	E	E	E	Glycerine	E	E	E	E
Tannic	E	E	E	E	Magnesium Hydroxide	E	E	E	E	Kerosene	E	E	E	E
Tartaric	E	E	E	E	Magnesium Sulfate	E	E	E	E	Photographic Solutions	E	E	E	E
					Mercuric Chloride	E	E	G	G	Tetrahydrofurane	U	U	U	U
<b>ALCOHOLS</b>					Mercurous Nitrate	E	E	G	G	Sodium Xylene Sulfonate	-	-	-	-
Amyl	E	E	L	U	Nickel Chloride	E	E	E	E	Sorbitol Solution	-	-	-	-
Benzol	U	U	U	U	Nickel Nitrate	E	E	E	E	Urea	E	E	E	E
Butyl	E	G	L	U	Nickel Sulfate	E	E	E	E	Urea-Ammonium-Nitrate	E	E	E	E
Ethyl 0-98%	E	E	E	E	Potassium Chloride	E	E	E	E					
Methyl	E	E	E	E	Potassium Dichromate 40%	E	E	E	E	<b>PLATING SOLUTIONS</b>				
					Potassium Ferricyanide	E	E	E	E	Brass	E	E	E	E
<b>GASES AND VAPORS</b>					Potassium Nitrate	E	E	E	E	Cadmium	E	E	E	E
Ammonia, Dry	E	E	E	E	Potassium Permanganate 10%	E	E	G	G	Chromium	E	G	G	G
Ammonia, Wet	L	U	-	-	Potassium Persulfate	E	E	E	E	Copper	E	E	E	E
Bromine	U	U	U	U	Potassium Sulfate	E	E	E	E	Gold	E	E	E	E
Carbon Dioxide	E	E	E	E	Silver Nitrate	E	E	E	E	Judium	E	E	E	E
Carbon Monoxide	E	E	E	E	Sodium Acetate	E	E	E	E	Lead	E	E	E	E
Chlorine, Dry	G	G	G	G	Sodium Bisulfate	E	E	E	E	Nickel	E	E	E	E
Fluorine	L	U	U	U	Sodium Chloride	E	E	E	E	Rhodium	E	E	E	E
Hydrogen	E	E	E	G	Sodium Chlorate	E	G	G	L	Silver	E	E	E	E
Hydrogen Sulfide	E	E	E	E	Sodium Cyanide	E	E	E	E	Tin	E	E	E	E
Sulfur Dioxide, Wet	G	U	L	U	Sodium Dichromate	E	E	E	G	Zinc	E	E	E	G
Sulfur Trioxide, Dry	E	E	E	G										

**KEY:** E = Excellent      G = Good      L = Limited      U = Unsuitable



# FRP CORROSION TABLE

This table may be used as a guide for ventilating gases and vapors from processes where chemicals shown are used.  
Maximum temperatures shown.

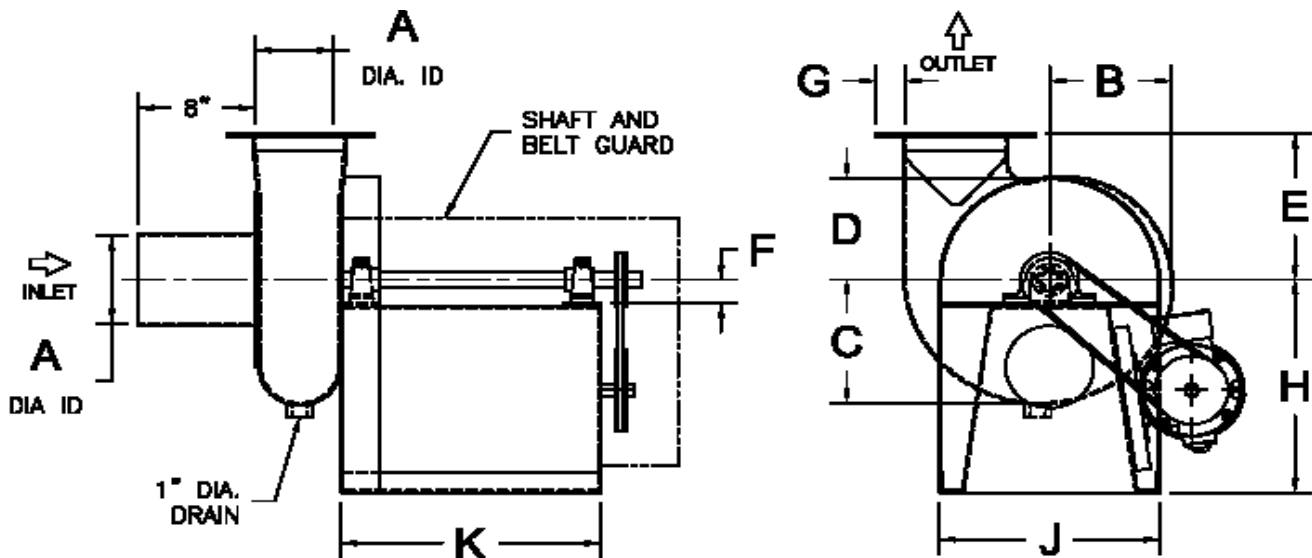
ENVIRONMENT	°F	ENVIRONMENT	°F	ENVIRONMENT	°F
<b>ACIDS</b>		<b>GASES (cont'd.)</b>		<b>SALTS (cont'd.)</b>	
Acetic to 10%	200	Hydrogen Sulfide	150	Potassium Persulfate	80
Acetic to 50%	150	Sulfur Dioxide, Dry	200	Potassium Sulfate	140
Acrylic	100	Sulfur Dioxide, Wet	200	Silver Nitrate	200
Benzene Sulfonic to 25%	170	Sulfur Trioxide, Dry	170	Sodium Acetate	170
Benzene Sulfonic 25% up	80	Sulfur Trioxide, Wet	120	Sodium Bisulfate	200
Benzoic	200		120	Sodium Chloride	200
Boric	200	<b>ALKALIES</b>		Sodium Chlorite	200
Butyric to 50%	200	Ammonium Bocarbonate	150	Sodium Cyanide	200
Butyric 50% up	80	Ammonium Carbonate	120	Sodium Dichromate	170
Carbonic	200	Ammonium Hydroxide to 5%	150	Sodium Ferricyanide	200
Chloracetic to 25%	170	Ammonium Hydroxide to 10%	120	Sodium Fluoride	150
Chloracetic 25% to 50%	150	Ammonium Hydroxide to 29%	80	Sodium Nitrate	200
Chromic to 5%	120	Aqueous Ammonia to 5%	150	Sodium Nitrite	200
Chromic 5% up	N. R.	Barium Carbonate	200	sodium Silicate pH Less Than 12	150
Citric	200	Barium Hydroxide to 10%	140	Sodium Sulfate	200
Fluoroboric	S 170	Calcium Hydroxide	170	Sodium Sulfite	170
Fluorosilicic up to 32%	S 90	Magnesium Carbonate	200	Stannic Chloride	200
Formic	F 200	Potassium Bicarbonate	170	Stannous Chloride	200
Gluconic to 50%	170	Potassium Carbonate	150	Zinc Chloride	200
Hydrobromic to 50%	150	Potassium Hydroxide to 50%	120	Zinc Nitrate	200
Hydrochloric to 15%	*200	Sodium Bicarbonate	170	Zinc Sulfite	170
Hydrochloric to 37%	*150	Sodium Carbonate to 35%	150		
Hydrochloric	*F 200	Sodium Hydroxide to 10%	N. R.	<b>SOLVENTS</b>	
Hydrocyanic to 10%	150	Sodium Hydroxide to 50%	N. R.	Acetone to 10%	F 180
Hydrofluoric to 10%	S 150	Sodium Sulfide	150	Benzene	80
Hydrofluorosilicic up to 30%	140	Trisodium Phosphate	140	Carbon Disulfide	80
Hypochlorous to 20%	170			Carbon Tetrachloride	F 140
Lactic	200	<b>SALTS</b>		Chlorobenzene	N. R.
Maleic	170	Aluminum Chloride	200	Ethyl Acetate	F 100
Nitric to 5%	150	Aluminum Potassium Sulfate	200	Ethyl Chloride	F 90
Nitric above 5%	N. R.	Aluminum Sulfate	200	Ethylene Dibromide	100
Nitric (vapor)	F 150	Ammonium Chloride	200	Ethylene Glycol	200
Nitrous to 10%	150	Ammonium Nitrate	200	n-Heptane	200
Oleic	200	Ammonium Persulfate to 25%	170	Hexane	140
Oxalic	200	Ammonium Persulfate, saturated	150	Methyl Ethyl Ketone	80
Perchloric	F 150	Ammonium Sulfate	200	Naphtha	200
Phosphoric	170	Aniline Sulfate to 25%	200	Naphthalene	200
Phosphoric, super	150	Aniline Sulfate, saturated	170	Tetrachloroethylene	80
Phosphoric (vapor)	F 200	Antimony Trichloride	170	Toluene	80
Phthalic	200	Barium Chloride	200	Xylene	80
Picric to 10%	80	Barium Sulfide	170		
Silicic	200	Calcium Chlorate	200	<b>BLEACHES</b>	200
Stearic	200	Calcium Chloride	200	Calcium Chlorate	200
Sulfamic, (see Benzene Sulfonic up to 25%)	170	Calcium Sulfate	200	Calcium Hypochlorite	200
Sulfuric to 25%	190	Copper Chloride	200	Chlorine Dioxide up to 15%	170
Sulfuric to 50%	140	Copper Cyanide	200	Chlorine Water	170
Sulfuric to 70%	80	Copper Fluoride	150	Hydrogen Peroxide to 10%	120
Sulfuric to 98% (Oleum)	N. R.	Copper Oxochloride	150	Hydrogen Peroxide to 30%	80
Sulfurous to 10%	170	Copper Sulfate	200	Sodium Chlorate	120
Tannic	200	Ferric Chloride	200	Sodium Hypochlorite	F 170
Tartaric	200	Ferric Nitrate	170		
Trichloroacetic to 50%	170	Ferric Sulfate	200	<b>OTHERS</b>	200
		Ferrous Chloride	200	Aluminum Chlorohydroxide	200
<b>ALCOHOLS</b>		Ferrous Nitrate	200	Ammonium Phosphate	F 80
Amyl	170	Ferrous Sulfate	200	Aqua Regia	150
Benzyl	100	Lead Acetate	200	Detergents	200
Butyl	140	Magnesium Chloride	200	Glycerine	200
Ethyl	80	Magnesium Hydroxide	170	Kerosene	200
Methyl	80	Magnesium Sulfate	200	Photographic Solutions	90
		Mercuric Chloride	200	Perchloroethylene	80
<b>GASES AND VAPORS</b>		Mercurous Chloride	200	Sodium Tetraborate	800
Ammonia, Dry	170	Nickel Chloride	200	Sodium Tripolyphosphate	800
Ammonia, Wet	150	Nickel Nitrate	200	Sodium Xylene Sulfonate	150
Bromine	100	Nickel Sulfate	200	Sorbitol Solution	200
Carbon Dioxide	200	Potassium Chloride	200	Urea	140
Carbon Monoxide	200	Potassium Dichromate	170	Urea-Ammonium-Nitrate	120
Chlorine	N. R.	Potassium Ferricyanide	200	8-8-8 Fertilizer	120
Fluorine	200	Potassium Nitrate	200	Shell D-D	N. R.
Hydrogen Fluoride, Wet	150	Potassium Permanganate	80	Steam, Etc	180

**N. R. = Not Recommended    F = Fumes Only    S = Surfacing Mat**

**\* Special hardware recommended; contact factory.**

Note: Except where prefixed by "F" the resin manufacturers figures are for immersion and the resistance is higher where exposure to fumes only is required

## DIMENSIONAL DATA FOR ARRANGEMENT #9 - VPB-800 SERIES FRP



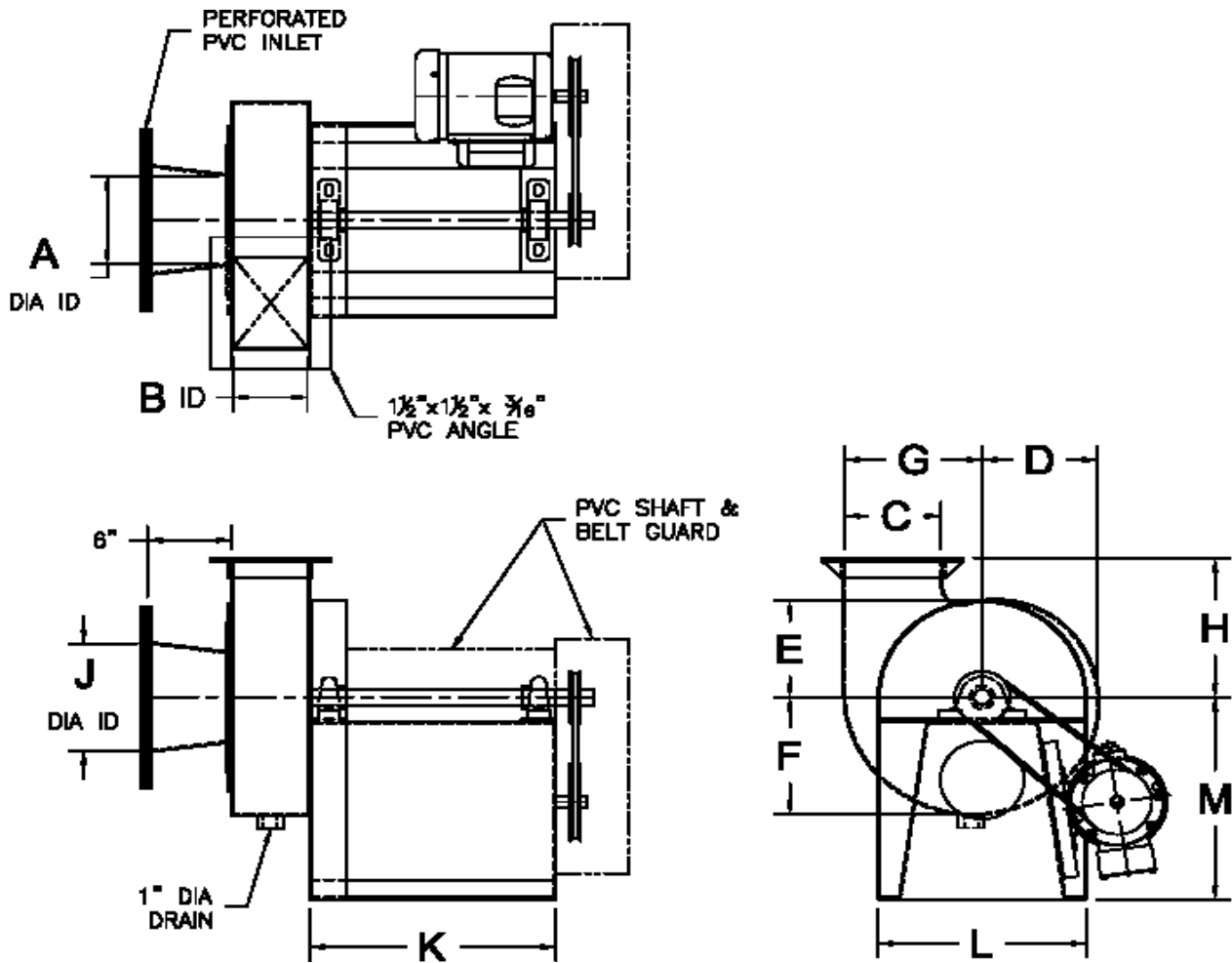
Model Size	Wheel Dia.	Shaft Dia.	Key Size	Key Length	A	B	C	D	E	F	H
806	10-1/2	1-3/16	1/4 x 1/8	3	6	8-1/4	9-3/16	7-5/8	10-7/8	1-11/16	15-9/16
808	14	1-3/16	1/4 x 1/8	3	8	10-15/16	12-1/8	10-1/16	13	1-11/16	15-9/16
810	17-1/2	1-7/16	3/8 x 3/16	3	10	13-3/8	14-5/8	12-3/16	18-7/8	1-7/8	20-1/2

Model Size	K	J	G	FRP weight less motor
806	17-3/4	15-3/16	2	148
808	20	17-3/16	2	183
810	22	21-2/3	2	213

Motor HP	TEFC Motor Weight
1	40
1-1/2	45
2	49
3	82
5	96
7-1/2	145

**Note:** Dimensions should not be used for construction.  
 Certified Prints available when required.

## DIMENSIONAL DATA FOR ARRANGEMENT #9 - VPB-800 SERIES PVC



Model Size	Wheel Dia.	Shaft Dia.	Key Size	Key Length	A	B	C	D	E	F	G	H	J
806	10-1/2	1-3/16	1/4 x 1/8	3	6-5/8	5-1/4	6-3/4	8-3/16	7-3/8	9	9-3/16	10-11/16	8-1/2
808	14	1-3/16	1/4 x 1/8	3	8-5/8	6-7/8	9	10-15/16	9-7/8	12-1/16	13-1/8	13-9/16	12
810	17-1/2	1-7/16	3/8 x 3/16	3	10-3/4	8-1/4	12	13-15/16	12-3/16	14-5/8	15-7/8	18-3/4	13-5/16

Model Size	K	L	M	PVC weight less motor
806	17-5/8	14-15/16	15-9/16	130
808	19-7/8	16-15/16	15-9/16	162
810	21-7/8	21-1/2	20-1/2	188

Motor HP	TEFC Motor Weight
1	40
1-1/2	45
2	49
3	82
5	96
7-1/2	145

**Note:** Dimensions should not be used for construction.  
 Certified Prints available when required.

- **LIMITED WARRANTY**

VIRON<sup>®</sup> INTERNATIONAL warrants to the dealers and owners its VIRON<sup>®</sup> products and parts to be free from defects in workmanship and material under normal use and services for one (1) year after the date of shipment by VIRON to the first retail purchaser or first user: if and only if VIRON<sup>®</sup> is notified in writing of the defect within fourteen (14) days from date that the defect is discovered. Written notice of defects discovered within the final fourteen (14) days of the warranty period must be sent to VIRON<sup>®</sup> via facsimile or first class mail prior to the expiration of the warranty period otherwise this warranty shall be void. Our obligation under this warranty is expressly limited to repairing or replacing at our option, without cost at our factory any part or parts thereof which shall be returned to and received by VIRON<sup>®</sup> within such warranty period with transportation charges both to and from VIRON<sup>®</sup> prepaid, and which our examination shall disclose to our satisfaction to have been defective. In the event a defect is discovered within the final seven days of the warranty period, the returned goods must be received by VIRON<sup>®</sup> at VIRON<sup>®</sup>'s facility within seven days following expiration of the warranty period. Any request for repair or replacement should be directed to VIRON<sup>®</sup> INTERNATIONAL, Owosso, MI.

If examined equipment is found not to be defective or for some other reason not to be within the warranty coverage, seller's service time expended on and off location will be charged to the purchaser. This warranty gives you specific legal rights which vary from state to state. FAILURE TO PAY THE INVOICE IN FULL WILL RESULT IN VOIDING ANY AND ALL WARRANTIES.

- **LIMITATION OF WARRANTY AND LIABILITY**

This warranty does not apply to such VIRON<sup>®</sup> products and parts which in the sole judgment of VIRON<sup>®</sup> have failed as a result of faulty installation or abuse, or incorrect electrical connections or alterations, made by others, or use under abnormal operating conditions or misapplication of products and parts.

This warranty does not apply to damage resulting from shipment or storage of VIRON<sup>®</sup> products. Purchaser acknowledges that VIRON<sup>®</sup> products contain rotating parts that may be damaged by the forces of nature if not installed or put to their intended use within seven (7) days of delivery. THIS WARRANTY DOES NOT COVER COMPONENT PARTS THAT CARRY A SEPARATE WARRANTY FROM THE MANUFACTURER OF THE COMPONENT PART.

VIRON<sup>®</sup> will not approve for payment any repair made outside its factory without prior written consent of its Owosso, Michigan office. The foregoing shall constitute our sole and exclusive warranty and our sole and exclusive liability and is in lieu of all other warranties, whether written, oral, implied or statutory.

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