

M.K. plastics

CORPORATION

SERVING THE NEEDS OF MODERN INDUSTRY



PRVS

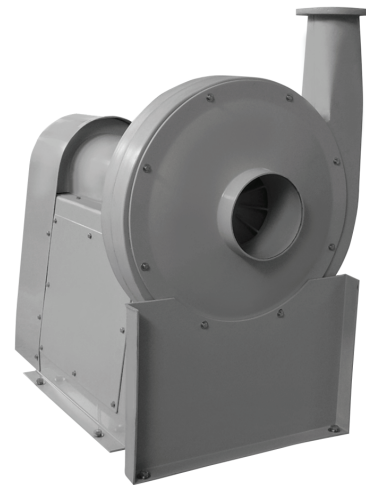
HIGH PRESSURE/LOW VOLUME
CENTRIFUGAL FIBERGLASS BLOWER

We are pleased to provide you with this Engineering brochure for the PRVS High Pressure/Low Volume Centrifugal Fiberglass Blower. The information contained within is also available on the M. K. Plastics Electronic Catalog (CD ROM). This CD includes information on all of the M. K. Plastics fans, exhaust systems and their components, and is available from your technical sales representative or M. K. Plastics directly. We look forward to assisting you with your important application.

For over 40 years, M. K. Plastics has been engineering, designing, and fabricating thermoplastic and FRP ventilation components and systems for institutional and industrial applications. Founded in 1963, today M. K. Plastics has facilities and offices in Montréal, Québec, Canada; Spiez, Switzerland; Troy, OH and Mooers, NY, USA. In major cities throughout the United States and Canada, M.K. Plastics is represented by technical sales representatives.

Other quality corrosion resistant fans are available from M.K. Plastics. Your local M.K. Plastics representative will be pleased to provide you with technical information upon request.

Axijet[®] High Plume Dilution Fan
Axijet[®] *LEADLAG*[™] Exhaust Fan Control System
Plastifer[®] Venturi Exhaust System
DHK Medium Pressure Centrifugal Fan
DHK-NW High Pressure Centrifugal Fan
CNW Centrifugal Fiberglass Fan
AXT Axial Tubular Fan
AXTC Centrifugal Inline Tubular Fan
RBK Roof Upblast & Sidewall Centrifugal Exhaust Fan
AXPR Axial Panel Fan
FRP & PVC Control Dampers & Gravity Backdraft Dampers
FRP & PVC Duct and Fittings



INTRODUCTION

M. K. Plastics Corporation's PRVS is a centrifugal high pressure blower assembly in which the impeller and housing are completely fabricated of fiberglass reinforced plastic (FRP). A revolution in fiberglass fan manufacturing, the impeller of the PRVS is the result of years of R & D. The impeller is manufactured with high quality corrosion resistant resins and fiberglass reinforced. This innovative design has no metal in the air stream, for superior corrosion resistance and long life in corrosive atmospheres.

M.K. PLASTICS QUALITY ASSURANCE

Each PRVS fan is statically & dynamically balanced to AMCA Standards 204-96 and test run with vibration measurements taken before shipment. The fans are standard AMCA A, spark resistant construction.

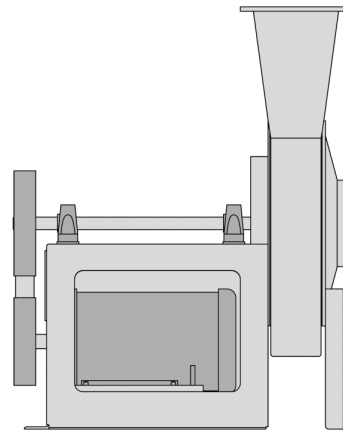
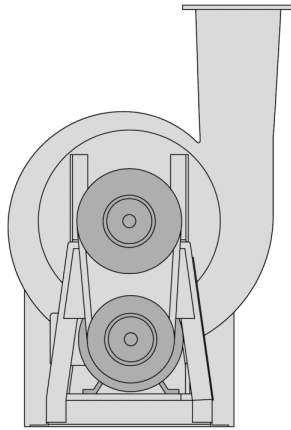
M.K. Plastics Corporation certifies that all PRVS models shown herein are licensed to bear the AMCA seal for air & sound. The ratings shown are based upon tests and procedures performed in accordance with AMCA Publication 211 and 311, and comply with the requirements of the AMCA Certified Ratings Program.



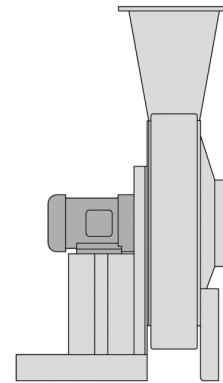
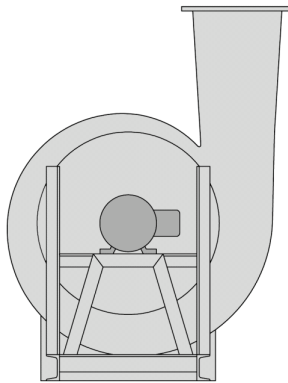
DESIGN AND CONSTRUCTION

- Six sizes are available, 63, 90, 125, 160, 200 and 250 (2.5", 3.5", 5", 6", 8" and 10") with capacities from 50 to 4,000 CFM and up to 26" S.P.
- The PRVS impeller is a flat radial tip design allowing for stability at high S.P., at low to medium flow rates.
- The fans are manufactured with high quality, corrosion resistant resins and are fiberglass reinforced, able to withstand temperatures up to 210 deg. F., subject to the exhaust chemicals and their concentrations. UV inhibitors are added to the resins and are flame retardant class 1 of 25 or less. The housings are smooth both exterior for aesthetic appearance and interior for unrestricted airflow.
- Built in compliance with ASTM Standard D4167-97, for Fiber-Reinforced Plastic Fans and Blowers.
- The PRVS housing has round slip-connection inlets, and undrilled flanged outlets, for quick installation of round ducts. Inlet flange and flange drilling are available.
- The PRVS stands are baked polyester coated, designed to withstand harsh environmental conditions. A panel is built into the stand to access the motor wiring junction box. Adjusting belt tension is easily done by raising or lowering the motor support plate.
- The standard blower shaft is carbon steel (C1045) and isolated from the corrosive airstream by the FRP impeller hub and internally by a FRP cap and O-ring. A 304 or 316 stainless steel shaft is available when required.
- PRVS bearings (belt drive) are heavy-duty, self-aligning, pillow block type, as standard.
- A neoprene hub seal is standard on all PRVS fans to minimize air leakage. A Teflon shaft seal is available for more severe environments. A Vacuum Seal is also available to eliminate any leakage when exhausting toxic or hazardous fumes.
- Standard arrangement #10 allows for a compact footprint when space is an issue, such as mechanical rooms with multiple fans. Also available are arrangement #1, (for larger motors and special designs), and arrangement #4, (direct drive).
- For different arrangements, the housings are field reversible and rotatable in 8 positions, as required.





ARR. 10



ARR. 4

***FAN POSITION - VIEW FROM DRIVE SIDE**

CCW BH 1 	CW BH 2 	CW TH 3 	CCW TH 4 	CCW UB 5 	CW UB 6 	CW DB 7
CCW DB 8 	CCW TAD 9 	CW TAD 10 	CW TAU 11 	CCW TAU 12 	CCW BAU 13 	CW BAU 14

*Bottom Angular Down (CW/CCW-BAD) position is available. Contact MK Plastics for details.

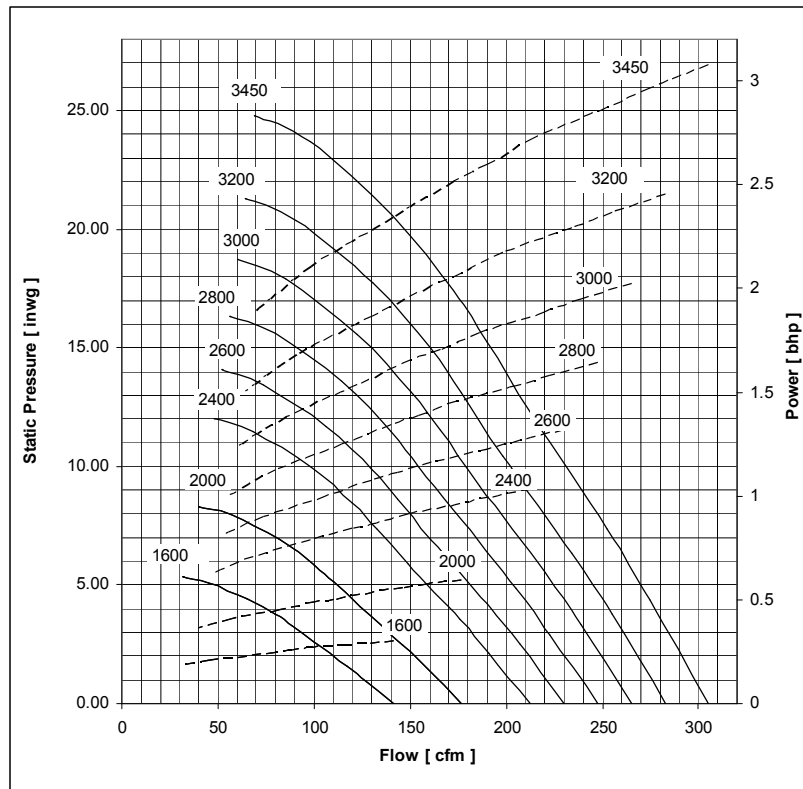
Impeller DIA. [in] = 20.50"

Max. Speed [rpm] = 3540

Outlet Area [ft²] = 0.028

Max. Motor Frame = 256T

Flow	O.V.	STATIC PRESSURE, inches of water																			
		4		6		8		10		12		14		16		18		20		24	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	1429	1464	0.17	1741	0.27	1989	0.39	2209	0.51	2409	0.65										
85	2429	1670	0.29	1920	0.42	2139	0.55	2343	0.71	2529	0.87	2699	1.04	2859	1.21	3009	1.39	3161	1.59	3441	1.99
120	3429	1957	0.49	2170	0.65	2361	0.81	2545	0.99	2714	1.17	2870	1.36	3023	1.56	3170	1.77	3311	1.99		
155	4429	2261	0.79	2464	1.00	2643	1.20	2803	1.39	2955	1.61	3097	1.82	3239	2.05	3373	2.28				
190	5429	2579	1.20	2770	1.45	2941	1.71	3097	1.96	3238	2.20	3370	2.44								
225	6429	2920	1.77	3088	2.06	3249	2.35	3397	2.65												
260	7429	3273	2.53	3423	2.84																



Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Standard Conditions
70°F
0.075 lb/ft³

— CFM vs. SP
- - - BHP

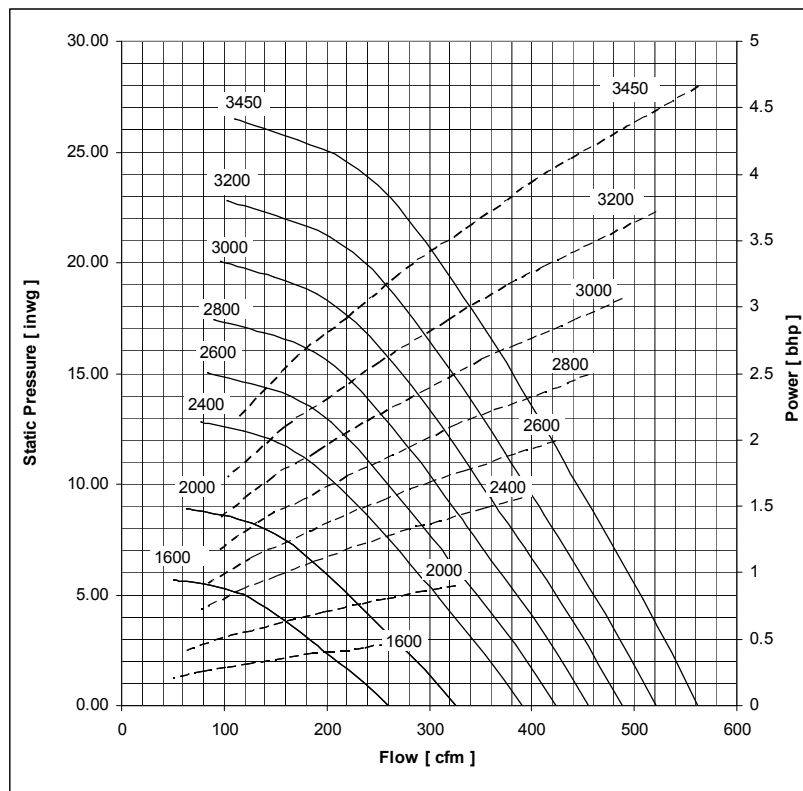
Impeller DIA. [in] = 20.50"

Max. Speed [rpm] = 3540

Outlet Area [ft²] = 0.054

Max. Motor Frame = 256T

Flow	O.V.	STATIC PRESSURE, inches of water																			
		4		6		8		10		12		14		16		18		20		25	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	1754	1420	0.21	1693	0.33	1935	0.47	2151	0.62	2347	0.77	2527	0.93	2695	1.09	2853	1.27	3003	1.44		
150	2632	1588	0.35	1817	0.49	2029	0.64	2226	0.81	2407	0.98	2583	1.18	2749	1.38	2903	1.60	3051	1.82	3393	2.37
200	3509	1799	0.55	2007	0.72	2199	0.90	2370	1.09	2529	1.29	2689	1.50	2841	1.71	2983	1.94	3117	2.16		
250	4386	2032	0.83	2226	1.04	2401	1.26	2559	1.47	2711	1.70	2855	1.94	2989	2.18	3114	2.42	3241	2.67		
300	5263	2279	1.21	2459	1.46	2620	1.72	2773	1.97	2911	2.22	3045	2.49	3176	2.76	3299	3.04	3417	3.32		
350	6140	2535	1.70	2703	2.00	2857	2.30	2997	2.60	3132	2.89	3259	3.19	3379	3.49						
400	7018	2797	2.32	2955	2.67	3101	3.01	3235	3.35	3361	3.70										



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Standard Conditions
70°F
0.075 lb/ft³

— CFM vs. SP
- - - BHP

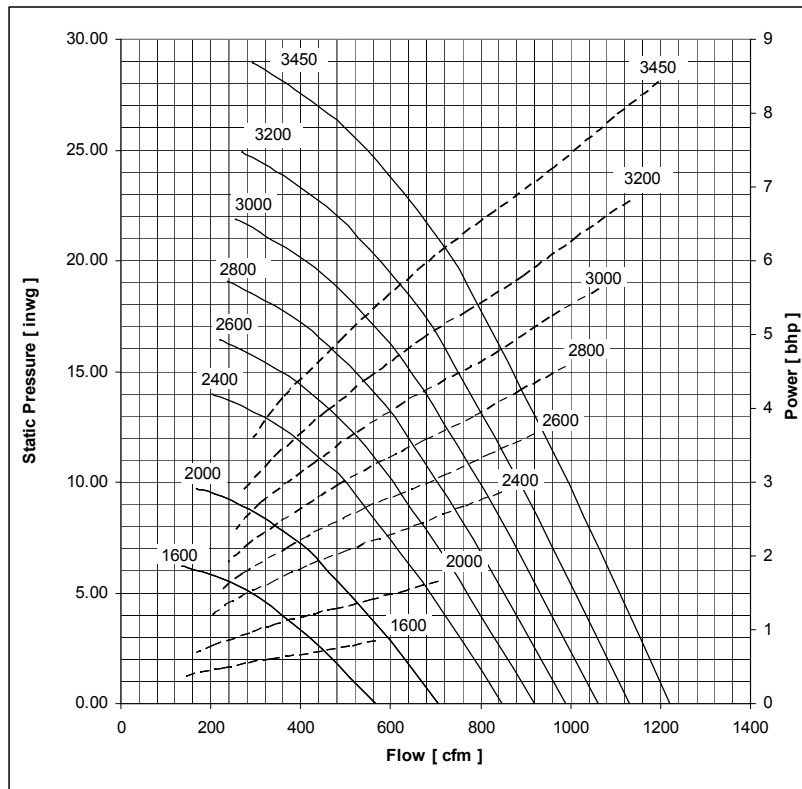
Impeller DIA. [in] = 20.50"

Max. Speed [rpm] = 3540

Outlet Area [ft²] = 0.114

Max. Motor Frame = 256T

Flow	O.V.	STATIC PRESSURE, inches of water																			
		4		6		8		10		12		14		16		18		20		26	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
250	2273	1420	0.39	1670	0.58	1891	0.78	2089	1.00	2267	1.22	2433	1.45	2589	1.67						
350	3182	1582	0.62	1805	0.85	2005	1.10	2189	1.36	2359	1.63	2517	1.90	2670	2.19	2814	2.49	2951	2.79	3323	3.74
450	4091	1782	0.92	1979	1.22	2153	1.51	2326	1.82	2487	2.14	2635	2.46	2779	2.79	2914	3.13	3043	3.48	3409	4.58
550	5000	1999	1.40	2182	1.73	2345	2.07	2495	2.41	2635	2.76	2779	3.14	2914	3.52	3043	3.91	3164	4.30		
650	5909	2232	2.03	2397	2.40	2551	2.79	2691	3.18	2826	3.58	2951	3.99	3070	4.40	3191	4.83	3311	5.28		
750	6818	2476	2.84	2623	3.25	2767	3.69	2901	4.13	3026	4.58	3147	5.05	3261	5.51	3370	5.97				
850	7727	2726	3.88	2864	4.34	2991	4.79	3117	5.29	3238	5.80	3353	6.31								



Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Standard Conditions
70°F
0.075 lb/ft³

— CFM vs. SP
- - - BHP

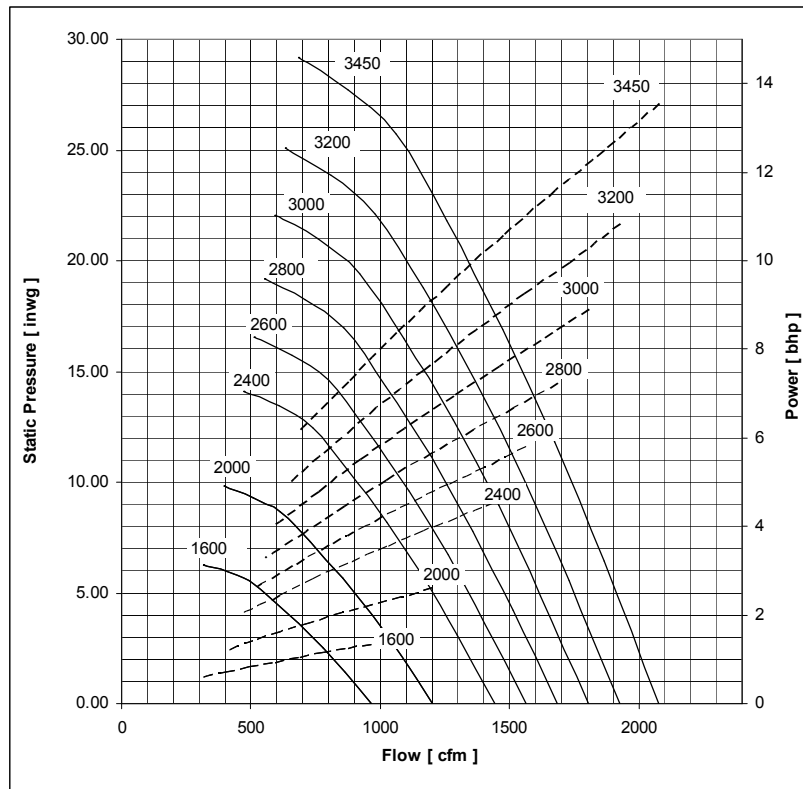
Impeller DIA. [in] = 20.50"

Max. Speed [rpm] = 3540

Outlet Area [ft²] = 0.196

Max. Motor Frame = 256T

Flow	O.V.	STATIC PRESSURE, inches of water																			
		4		6		8		10		12		14		16		18		20		26	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
500	2660	1441	0.66	1661	0.92	1870	1.20	2061	1.51	2239	1.83										
750	3989	1720	1.33	1991	1.69	2079	2.05	2239	2.43	2382	2.81	2526	3.21	2670	3.64	2807	4.07	2935	4.51	3303	5.93
1000	5319	2041	2.42	2207	2.89	2357	3.36	2501	3.84	2635	4.33	2759	4.81	2882	5.32	2997	5.82	3107	6.32	3432	7.93
1200	6383	2323	3.69	2467	4.25	2607	4.81	2735	5.37	2859	5.94	2979	6.53	3093	7.11	3199	7.69	3303	8.27		
1400	7447	2617	5.41	2747	6.05	2867	6.68	2988	7.34	3103	8.00	3211	8.65	3317	9.32	3423	10.01				
1600	8511	2917	7.63	3035	8.36	3147	9.08	3255	9.82	3359	10.55										
1800	9574	3223	10.44	3332	11.25	3435	12.06														



Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Standard Conditions
70°F
0.075 lb/ft³

— CFM vs. SP
- - - BHP

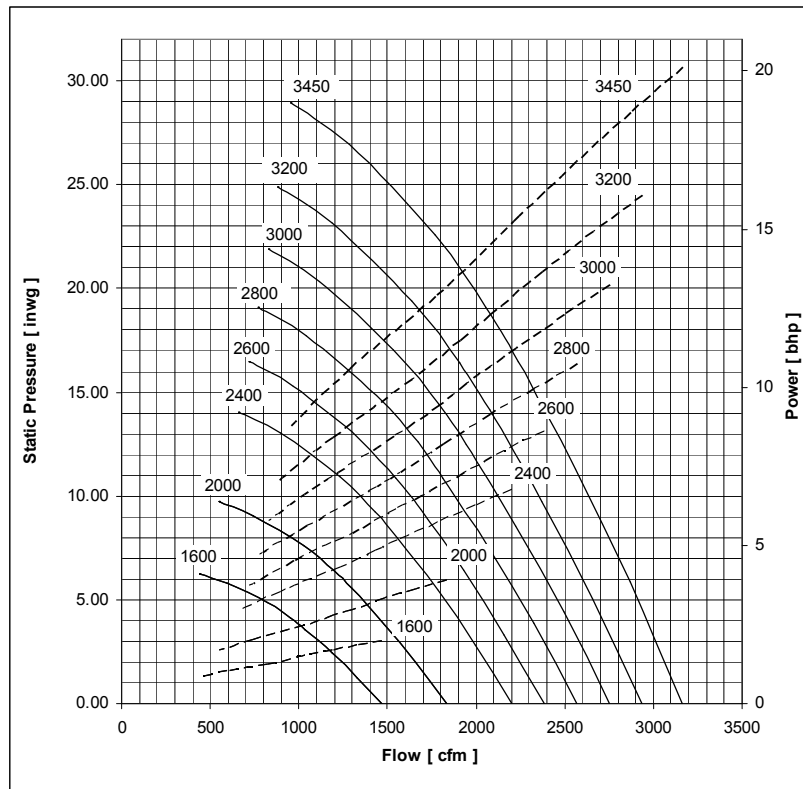
Impeller DIA. [in] = 20.50"

Max. Speed [rpm] = 3540

Outlet Area [ft²] = 0.307

Max. Motor Frame = 256T

Flow	O.V.	STATIC PRESSURE, inches of water																			
		4		6		8		10		12		14		16		18		20		26	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1000	3257	1623	1.54	1835	2.03	2029	2.55	2209	3.12	2373	3.70	2523	4.29	2664	4.89	2805	5.53	2939	6.18	3305	8.18
1300	4235	1861	2.56	2044	3.15	2214	3.76	2376	4.41	2523	5.05	2673	5.79	2811	6.52	2943	7.27	3067	8.03	2411	10.36
1600	5212	2123	4.04	2288	4.77	2438	5.49	2579	6.21	2714	6.95	2849	7.75	2976	8.56	3095	9.35	3217	10.24		
1900	6189	2400	6.06	2547	6.92	2685	7.78	2817	8.65	2938	9.49	3057	10.35	3170	11.21	3285	12.14	3399	13.12		
2100	6840	2591	7.77	2729	8.72	2857	9.66	2982	10.61	3101	11.57	3211	12.50	3320	13.45	3426	14.41				
2400	7818	2882	10.92	3009	12.02	3129	13.11	3238	14.15	3351	15.26										
2700	8795	3185	14.93	3297	16.13	3407	17.36														



Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Standard Conditions
70°F
0.075 lb/ft³

— CFM vs. SP
- - - BHP

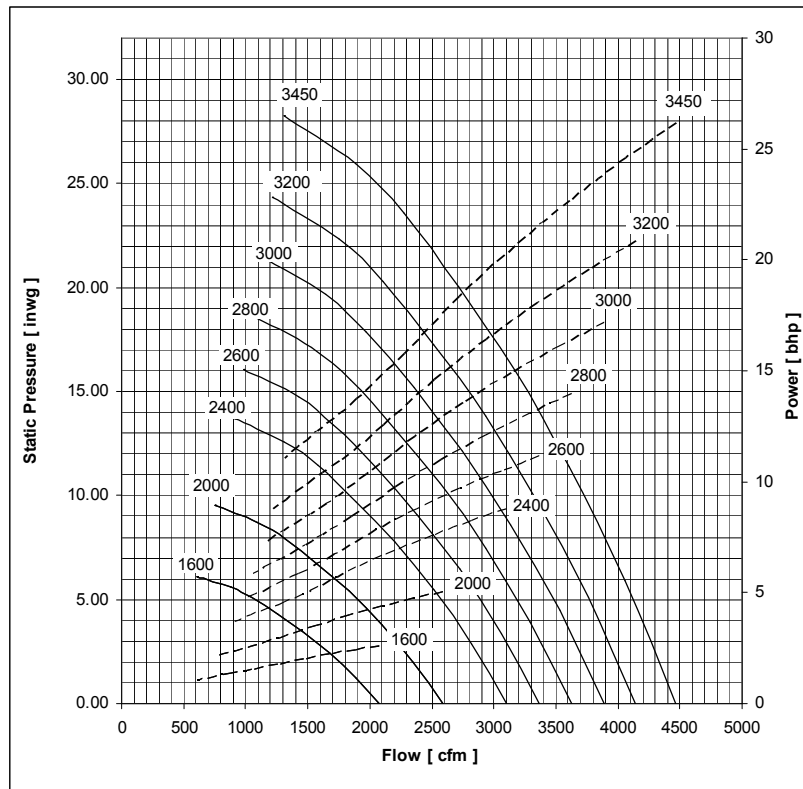
Impeller DIA. [in] = 20.50"

Max. Speed [rpm] = 3540

Outlet Area [ft²] = 0.479

Max. Motor Frame = 256T

Flow	O.V.	STATIC PRESSURE, inches of water																			
		4		6		8		10		12		14		16		18		20		26	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	3132	1682	2.34	1895	3.06	2085	3.76	2255	4.45	2420	5.20	2570	5.96	2714	6.74	2857	7.61	2993	8.50	3364	11.25
2000	4175	1964	4.10	2147	5.03	2320	5.98	2476	6.93	2626	7.88	2764	8.79	2897	9.73	3020	10.64	3145	11.65		
2500	5219	2276	6.73	2435	7.87	2585	9.01	2726	10.18	2864	11.36	2997	12.58	3120	13.77	3238	14.94	3353	16.10		
3000	6263	2609	10.47	2747	11.79	2876	13.11	3009	14.53	3132	15.92	3249	17.31	3367	18.76						
3400	7098	2882	14.36	3011	15.89	3132	17.40	3244	18.88	3361	20.46										
3750	7829	3132	18.60	3244	20.19	3361	21.91														
4000	8351	3311	22.11	3414	23.76																



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Standard Conditions
70°F
0.075 lb/ft³

— CFM vs. SP
- - - BHP

PRVS 63

RPM	Sp inwg	Frequency[Hz]								LWA dB
		63	125	250	500	1000	2000	4000	8000	
1600	0.25	96	91	97	88	78	70	62	55	91
	1.50	96	89	98	89	78	70	62	54	91
	2.25	95	89	98	89	78	71	64	56	91
2000	0.25	104	97	98	99	85	78	70	62	97
	2.25	105	94	97	99	85	78	70	62	97
	3.50	104	95	98	100	85	78	71	63	98
2400	0.25	111	102	99	107	91	84	76	68	104
	3.50	113	99	97	108	91	84	76	68	105
	5.00	112	99	98	108	91	84	77	69	105
2600	0.25	113	104	101	110	94	86	78	70	107
	4.00	115	102	98	111	94	86	78	70	108
	6.00	114	102	99	111	95	86	80	72	108
2800	0.25	114	107	103	111	97	89	81	73	108
	4.50	117	105	100	112	97	89	81	73	109
	7.00	115	105	101	112	98	89	82	74	109
3000	0.25	115	109	104	112	100	91	83	75	110
	5.00	118	108	102	113	101	91	83	75	110
	8.00	117	108	103	113	101	91	84	77	111
3200	0.25	116	112	106	113	103	93	85	77	111
	6.00	119	111	103	113	104	93	85	77	111
	9.00	118	110	104	113	104	93	86	79	111
3450	0.25	118	114	108	113	107	95	88	80	112
	7.00	120	114	105	113	107	95	88	80	112
	11.00	119	113	106	113	108	96	89	81	113

PRVS 90

RPM	Sp inwg	Frequency[Hz]								LWA dB
		63	125	250	500	1000	2000	4000	8000	
1600	0.25	92	88	95	85	74	69	62	55	88
	2.50	93	86	94	83	73	67	60	53	87
	4.50	91	85	92	81	72	66	59	52	85
2000	0.25	98	94	96	95	81	75	70	63	94
	4.50	99	93	93	94	79	74	67	60	92
	6.50	98	91	92	93	78	74	66	59	91
2400	0.25	103	99	97	104	87	81	76	69	101
	6.50	104	98	93	103	84	80	73	66	101
	9.00	104	97	92	102	83	80	72	65	99
2600	0.25	105	101	98	107	90	83	78	71	104
	7.50	106	101	94	106	87	83	76	69	103
	12.00	106	99	94	104	85	82	75	67	101
2800	0.25	106	103	100	108	93	85	80	74	105
	8.50	108	103	97	108	91	85	78	71	105
	14.00	108	101	96	105	89	84	77	70	103
3000	0.25	107	105	102	109	97	87	82	76	107
	9.50	109	106	99	109	95	87	80	73	106
	16.00	109	104	98	107	93	86	79	72	104
3200	0.25	108	107	103	110	100	89	84	78	108
	11.00	110	107	101	109	98	88	82	75	107
	18.00	110	106	100	107	96	87	81	74	105
3450	0.25	110	109	105	110	103	92	86	80	109
	13.00	111	110	103	109	102	90	85	78	107
	21.00	111	108	102	107	100	89	84	76	106

PRVS 125

RPM	Sp inwg	Frequency[Hz]								LWA dB
		63	125	250	500	1000	2000	4000	8000	
1600	0.25	93	89	90	85	79	74	69	63	87
	2.50	91	86	89	85	79	73	65	58	86
	4.50	89	83	86	85	79	72	63	56	85
2000	0.25	101	94	94	93	85	81	75	70	93
	4.50	99	90	91	93	85	80	72	65	92
	6.50	99	88	89	91	86	79	71	63	91
2400	0.25	108	98	97	100	91	86	81	76	99
	6.50	106	94	93	99	91	86	77	70	98
	9.00	107	93	92	97	91	86	77	69	97
2600	0.25	111	101	99	102	93	88	83	78	101
	7.50	109	97	95	101	93	88	80	73	100
	12.00	110	95	92	98	94	88	79	72	98
2800	0.25	112	103	101	103	96	90	85	80	102
	8.50	110	100	97	102	95	90	83	76	101
	14.00	112	98	94	99	96	90	82	74	100
3000	0.25	113	106	102	104	98	92	87	82	104
	9.50	111	103	99	103	98	92	85	78	103
	16.00	113	102	96	100	98	92	84	76	102
3200	0.25	114	108	104	105	100	94	89	84	106
	11.00	112	106	100	104	100	94	87	80	105
	18.00	114	104	97	101	100	94	87	78	103
3450	0.25	116	111	105	107	103	96	91	86	108
	13.00	114	109	102	105	102	96	90	82	106
	21.00	115	108	99	102	102	97	89	81	105

PRVS 160

RPM	Sp inwg	Frequency[Hz]								LWA dB
		63	125	250	500	1000	2000	4000	8000	
1600	0.25	92	90	96	89	81	75	70	66	91
	2.75	91	88	93	85	79	74	67	60	87
	4.50	90	86	90	84	79	73	65	58	86
2000	0.25	100	94	99	98	87	82	77	73	97
	4.75	98	92	95	94	84	81	73	66	93
	7.00	99	91	93	93	84	81	73	65	92
2400	0.25	107	97	100	106	93	88	82	78	104
	6.75	104	96	97	102	89	87	79	72	100
	10.00	106	95	95	100	88	87	79	71	98
2600	0.25	109	99	102	109	96	90	84	80	106
	8.00	106	98	98	104	91	89	82	75	102
	12.00	108	98	96	102	91	89	81	74	100
2800	0.25	110	102	103	110	99	92	86	82	108
	9.00	108	101	100	106	94	91	84	77	104
	14.00	109	101	98	103	93	91	84	76	102
3000	0.25	111	105	104	111	102	94	88	84	109
	10.00	109	104	101	107	97	92	86	80	105
	16.00	111	103	100	105	96	92	86	78	104
3200	0.25	112	107	105	112	104	96	90	86	110
	11.50	110	106	103	108	100	94	89	82	107
	18.00	112	106	101	105	99	94	88	80	105
3450	0.25	114	110	107	112	107	98	93	88	112
	14.00	111	108	104	108	103	96	91	84	108
	21.00	113	108	103	106	102	95	91	83	107

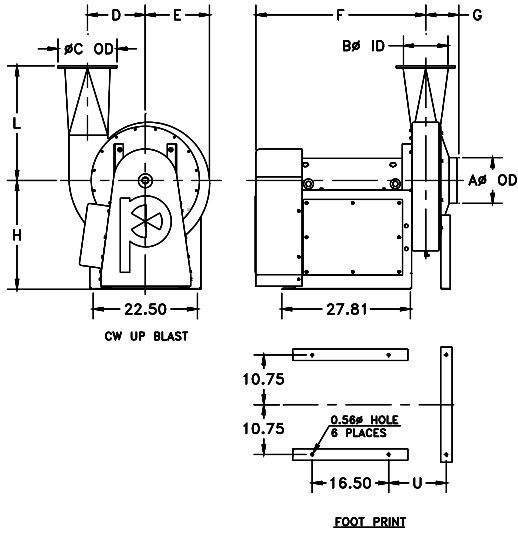
PRVS 200

RPM	Sp inwg	Frequency[Hz]								LWA dB
		63	125	250	500	1000	2000	4000	8000	
1600	0.25	93	92	96	91	84	79	74	69	92
	2.75	91	89	92	87	80	75	69	64	88
	4.50	91	89	90	84	78	74	68	62	86
2000	0.25	99	97	100	99	90	85	80	75	99
	4.75	97	94	95	95	86	82	76	70	94
	7.00	97	94	94	92	84	80	74	68	92
2400	0.25	105	100	102	106	96	91	86	81	105
	6.75	102	98	98	102	91	87	81	75	100
	10.00	102	99	97	99	89	86	80	74	98
2600	0.25	107	102	104	108	98	93	88	83	107
	8.00	103	100	99	104	94	89	83	78	102
	12.00	103	101	98	101	91	88	82	76	100
2800	0.25	108	104	105	110	101	95	90	85	108
	9.00	105	102	101	105	97	92	86	80	104
	14.00	105	103	100	103	94	90	85	79	102
3000	0.25	109	106	106	111	104	97	92	87	110
	10.50	106	104	103	106	99	93	88	82	106
	16.00	106	105	102	104	96	92	87	81	103
3200	0.25	110	108	108	112	106	99	94	89	111
	12.00	107	106	104	107	102	95	90	84	107
	18.00	107	106	103	105	99	94	89	83	105
3450	0.25	112	110	109	113	109	101	96	91	113
	14.00	108	108	106	108	104	97	92	86	109
	21.00	108	108	105	106	102	95	91	85	107

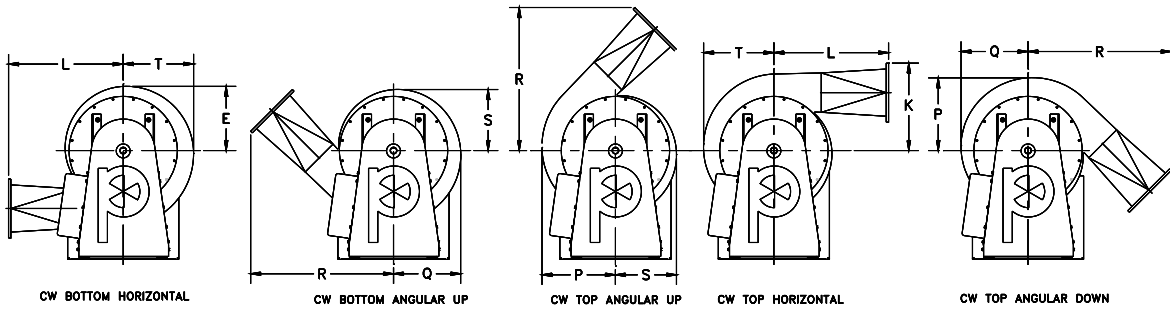
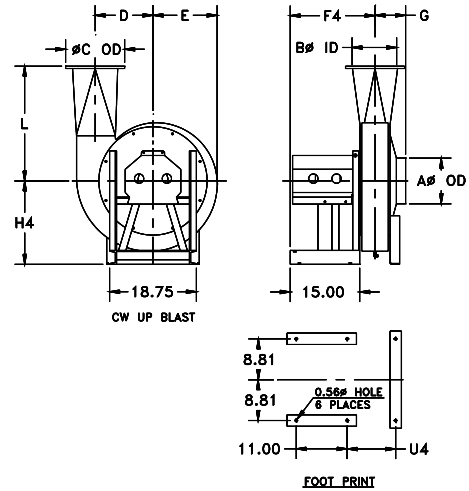
PRVS 250

RPM	Sp inwg	Frequency[Hz]								LWA dB
		63	125	250	500	1000	2000	4000	8000	
1600	0.25	93	96	102	95	87	82	77	73	97
	2.75	90	93	97	91	83	78	74	70	92
	4.50	90	91	92	87	81	76	72	67	89
2000	0.25	98	100	104	104	94	88	84	80	103
	4.75	94	97	100	98	89	84	79	75	98
	7.00	94	96	97	95	87	82	78	73	95
2400	0.25	101	103	106	111	100	94	89	85	109
	6.75	97	100	103	105	94	89			

Arrangement #10



Arrangement #4



NOTE: 'CW' rotation is shown, 'CCW' rotation is similar, but opposite. For Down-Blast arrangement, please contact factory

SIZE	A	B	C	D	E	F	F4	G	H	H4
63	2.50	2.25	4.75	10.83	11.81	35.56	17.53	6.27	23.50	18.00
90	3.56	3.16	5.88	11.06	12.16	35.69	17.66	6.24	23.50	18.00
125	4.94	4.56	7.25	11.38	12.54	35.81	17.78	6.44	23.50	18.00
160	6.31	6.00	8.63	11.73	12.98	35.97	17.94	6.65	23.50	18.00
200	7.88	7.50	10.25	12.13	13.44	36.13	18.09	6.59	23.50	18.00
250	9.88	9.38	12.75	12.50	13.84	36.38	18.31	7.06	23.50	18.00

SIZE	K	L	P	Q	R	S	T	U	U4
63	13.19	14.00	11.93	11.85	19.22	11.77	11.90	10.44	8.31
90	14.00	15.75	12.51	12.27	21.04	12.04	12.40	10.69	8.56
125	15.00	17.72	13.25	12.78	23.14	12.31	13.04	10.94	8.81
160	16.06	19.69	14.04	13.33	25.26	12.62	13.72	11.25	9.12
200	17.25	22.00	14.38	13.89	27.67	12.96	14.38	11.56	9.44
250	18.88	24.75	15.84	14.50	30.67	13.16	15.06	12.00	9.87

Dimensions are subject to change. Certified prints are available.

Maximum allowed temperature °F. All concentrations are 100% of saturated solutions, unless otherwise stated.

Chemical	FRP	Chemical	FRP	Chemical	FRP	Chemical	FRP
Acetic Acid, 25%	210	Citric Acid	210	Lactic Acid 25%	210	Sodium Fluoride	*180
Acetone, up to 10%	180	Coconut Oil	210	Lauric Acid	210	Sodium Hydroxide, 70%	*210
Acrylic Acid, up to 25%	100	Copper Acetate	210	Lead Acetate	210	Sodium Hypochlorite	*125
Alum (Aluminum Potassium Sulfate)	210	Copper Chloride	210	Lead Nitrate	210	Sodium Hyposulfite, up to 20%	210
Aluminum Chloride	210	Copper Cyanide	180	Linoleic Acid	100	Sodium Lauryl Sulfate	160
Aluminum Fluoride	*120	Copper Fluoride	170	Linseed Oil	210	Sodium Mono-phosphate	210
Aluminum Hydroxide	210	Copper Nitrate 30%	170	Lithium Bromide	210	Sodium Nitrate	210
Aluminum Nitrate	180	Copper Sulfate	210	Lithium Chloride	210	Sodium Nitrite	210
Aluminum Potassium Sulfate	210	Cresol, up to 10%	80	Magnesium Bicarbonate	210	Sodium Silicate, pH-12	*210
Aluminum Sulfate	210	Crude Oil	210	Magnesium Bisulfite	180	Sodium Sulfate	210
Ammonia, dry gas	*170	Cyclohexane	110	Magnesium Carbonate	180	Sodium Sulfide	210
Ammonium Acetate, up to 65%	100	Dechlorinated Brine Storage	180	Magnesium Chloride	210	Sodium Sulfite	210
Ammonium Carbonate	150	Diallylphthalate	210	Magnesium Hydroxide	*210	Sodium Tetraborate	180
Ammonium Chloride	210	Diammonium Phosphate, up to 65%	210	Magnesium Nitrate	210	Sodium Thiosulfate	180
Ammonium Fluoride 10%	*150	Dibutyl Ether	150	Magnesium Sulfate	210	Sodium Tripolyphosphate	210
Ammonium Hydroxide, up to 10%	150	Dibutyl Phthalate	200	Maleic Acid	210	Sodium Xylene Sulfonate	160
Ammonium Nitrate	210	Diesel Fuel	210	Mercuric Chloride	210	Sorbitol Solution	180
Ammonium Persulfate	210	Diethanolamine	150	Methyl Ethyl Ketone, up to 10%	80	Stannic Chloride	210
Ammonium Phosphate	210	Diethylene Glycol	210	Monochloroacetic Acid	N.R.	Stannous Chloride	210
Ammonium Sulfate	210	Dimethyl Phthalate	170	Nickel Chloride	210	Stearic Acid	210
Ammonium Sulfide	100	Dimethyl Sulfoxide	80	Nickel Nitrate	210	Styrene	80
Ammonium Sulfite	110	Dioctyl Phthalate	210	Nickel Sulfate	210	Sulfamic Acid	210
Ammonium Thiocyanate, 60%	*150	Diphenyl Ether	140	Nitric Acid, 30%	140	Sulfated Detergents	210
Amyl Acetate	100	Dipropylene Glycol	180	Nitrous Acid	73	Sulfite Liquors	210
Amyl Alcohol	210	Ethyl Alcohol	120	Oleic Acid	200	Sulfonated Detergents	170
Amyl Chloride	100	Ethylene Chlorohydrin	100	Oxalic Acid 50%	210	Sulfur Dioxide, dry gas	210
Aniline Sulfate	210	Ethylene Glycol	210	Palmitic Acid 10%	210	Sulfur Dioxide, wet gas	210
Aqua Regia	80	Fatty Acids	210	Perchloroethylene	100	Sulfur Troxide	210
Arsenic Acid	180	Ferric Chloride	210	Perchloric Acid, up to 10%	150	Sulfuric Acid, up to 25%	210
Barium Acetate	180	Ferric Nitrate	210	Phenol, up to 10%	80	Sulfuric Acid, up to 50%	210
Barium Carbonate	*210	Ferric Sulfate	210	Phenol	170	Sulfuric Acid, up to 70%	180
Barium Chloride	210	Ferrous Chloride	210	Phosphoric Acid up to 85%	210	Sulfurous Acid, above 10%	110
Barium Hydroxide, up to 10%	*170	Ferrous Nitrate	210	Phthalic Anhydride	210	Tall Oil	160
Barium Sulfate	210	Ferrous Sulfate	210	Photographic Solution	80	Tannic Acid	210
Barium Sulfide	210	Fluoboric Acid	*210	Picric Acid	170	Tartaric Acid	210
Benzene Sulfonic Acid 10%	210	Fluosilicic Acid	150	Plating Solutions	180	Tetrachloroethylene	100
Benzoic Acid	210	Formaldehyde 50%	170	Potassium Aluminum Sulfate	210	Tetrapotassium Pyrophosphate 60%	150
Black Liquor Recovery Gasses	210	Formic Acid	150	Potassium Bicarbonate, up to 10%	*170	Tetrasodium Ethylene Diamine	120
Bleach Liquor (Pulp mill)	210	Fuel Oil	210	Potassium Bromide	120	Tetrasodium Pyrophosphate	150
Borax	210	Gallic Acid	*80	Potassium Chloride	210	Toluene	80
Boric Acid	210	Gasoline	180	Potassium Cy-Amp	210	Toluene Di-isocyanate, fumes	80
Brine	210	Gluconic Acid, up to 50%	180	Potassium Dichromate	210	Toluene Sulfonic Acid	210
Bromine, dry gas	140	Glucose	210	Potassium Ferricyanide	210	Trichlorethylene, fumes	170
Bromine, wet gas	100	Glycerine	210	Potassium Ferrocyanide	210	Trichloroacetic Acid, up to 50%	210
Butyl Acetate	100	Glycolic Acid	200	Potassium Hydroxide, up to 25%	*120	Trimethylamine Hydrochloride	210
Butyric Acid	100	Green Liquor, Pulp MILL	200	Potassium Manganate 10%	210	Triphenyl Phosphite	140
Cadmium Chloride	180	Hexachlorocyclopentadiene	100	Potassium Persulfate	210	Trisodium Phosphate	210
Calcium Bisulfate	200	Hydraulic Fluid	180	Potassium Sulfate	210	Turpentine, Pure Gum	150
Calcium Carbonate	180	Hydrobromic Acid, up to 20%	170	Sea Water	180	Urine / Urea	150
Calcium Chlorate	210	Hydrochloric Acid, up to 37%	180	Silicic Acid	210	Vegetable Oils	210
Calcium Chloride	210	Hydrocyanic Acid, up to 10%	170	Silver Cyanide, up to 5%	200	Vinegar	210
Calcium Hydroxide	*210	Hydrofluoric Acid, 20%	*120	Sodium Acetate	210	Water, Distilled / Demineralized	180
Calcium Hypochlorite	*150	Hydrofluosilicic Acid, up to 30%	*120	Sodium Benzoate	180	Water, Organic Vapors	175
Calcium Nitrate	210	Hydrogen Bromide, gas	180	Sodium Bisulfate	210	Water Sea / Salt	180
Calcium Sulfate	210	Hydrogen Chloride, dry gas	210	Sodium Bisulfite	210	Water, waste	180
Camphor	80	Hydrogen Fluoride	*180	Sodium Borate (Borax)	210	White Liquor, Pulp Mill	180
Carbon Dioxide, gas	210	Hydrogen Peroxide, up to 30%	150	Sodium Bromide	210	Xylene	80
Carbonic Acid	210	Hydrogen Sulfide, wet/dry gas	210	Sodium Chlorate	210	Zinc Chlorate	210
Carbon Monoxide, gas	210	Hydroiodic Acid, up to 10%	150	Sodium Chlorite	210	Zinc Chloride	210
Carbon Tetrachloride, vapor	200	Hypochlorous Acid, up to 20%	110	Sodium Chloride	150	Zinc Nitrate	210
Caustic Soda	130	Iodine (solid, solution and vapor)	170	Sodium Cyanide	210	Zinc Sulfite	210

*indicates synthetic fiber surfacing mat recommended. N.R. - 'Not Recommended'

FRP - Fiber Reinforced Polyester or Vinyl Ester are Thermosetting Products that use Polyester or Vinyl Ester resins in junction with glass fibers in fabrication of a wide variety of products. They possess outstanding resistance to corrosion by many different chemicals including both acids and alkalis at room and elevated temperatures. They have high impact resistance, excellent electrical and thermal insulation properties. They require little maintenance repair over a long service life and provide high strength at low weight. Industrial applications include process, vessels, storage tanks, piping hoods, scrubbers, ducts and ventilation equipment. All M K Plastics FRP fans have inherent UV inhibitors and are available in different classes of flame spread.

HIGH PRESSURE/LOW VOLUME CENTRIFUGAL FIBERGLASS BLOWER

DRAIN CONNECTION

A 0.5" female threaded drain connection with plug is located at the lowest point of the fan housing, for draining any fluids that may accumulate. The elbow design, which extends 1.5" below the casing, allows for easy access.

HUB SEAL

Neoprene or Teflon hub seals are available. Also, a patent pending Vacuum Seal, for highly sensitive exhaust situations.



VACUUM SEAL

GRAPHITE IMPREGNATION

A graphite liner may be laminated to the inside of the fan casing to remove any build up of static electricity when handling potentially explosive gases. The gas-stream surfaces are grounded to the fan base.

INLET AND OUTLET FLANGES

For applications where bolted duct connections are required. Flanges are available un-drilled or pre-drilled to M.K. Plastics standard hole pattern and size. Un-drilled outlet flange is standard on all fans.

COMPANION FLANGE AND SLEEVE

Pre-drilled PVC or FRP mating flange with a 2" sleeve, for use with a flexible connection at both inlet and outlet of fan.

FLEXIBLE CONNECTOR

A high pressure 'Plastifer' vinyl compound (FPVC) flexible connector is available 6" wide, to suit both inlet and outlet fan dimensions. It is corrosion resistant to acid and base effluents. Due to UV inhibitors, it is suitable for outdoor applications. The fastening straps are in stainless steel. A heavy duty glass fabric flexible connector is also offered for severe corrosive exhaust, and higher temperature applications.



FLEXIBLE CONNECTOR

DISCONNECT SWITCHES

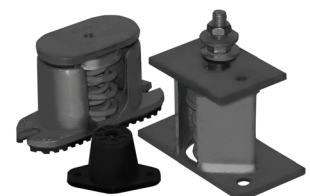
A wide selection of NEMA rated fusible, or non-fusible disconnect switches, mounted and pre-wired to the fan motor, if required.

STAINLESS STEEL SHAFTS

304 and 316 stainless steel shafts are available on all DHK fan sizes, where possible corrosion on standard carbon steel shafts may be of concern.

DAMPERS

Single blade gravity or control type dampers for both inlet and outlet of fan. Manufactured in either PVC or FRP. Control dampers are supplied with a quadrant lever for manual, or an extended shaft and actuator mounting plate for motorized operation.



VIBRATION ISOLATORS

VIBRATION ISOLATORS

The standard unitary base allows for easy installation of both rubber vibration pads or spring vibration isolators.

MOTORS

UL and CSA, Open Drip Proof (ODP), TENV, TEFC, Chem Duty, Washdown and Explosion Proof motors are available. All complying with EPAC standards. Premium High Efficiency are offered, as required.

HIGH PRESSURE/LOW VOLUME CENTRIFUGAL FIBERGLASS BLOWER

PART 1 GENERAL

1.01 WORK INCLUDED

FRP High Pressure/Low Volume Fiberglass Centrifugal Blowers.

1.02 RELATED WORK

All sections, drawing plans, and contract documents.

1.03 REFERENCES

- A. AMCA -99 Standards Handbook
- B. AMCA 210 - Laboratory Methods of Testing Fans for Rating Purposes.
- C. AMCA 211 - Certified Ratings Procedure - Air Performance.
- D. AMCA 300 - Test Code for Sound Rating Air Moving Devices.
- E. AMCA 311 - Certified Sound Ratings Program for Air Moving Devices.
- F. AFMBA - Method of Evaluating Load Ratings of Bearings (ASA - B3.1 1).
- G. AMCA 204 - Balance Quality and Vibration Levels for Fans.
- H. ASTM D4167-97 - Standard Specification for Fiber-Reinforced Plastic Fans and Blowers.

1.04 QUALITY ASSURANCE

- A. Fans shall be tested in accordance with AMCA Standards 210 and 300, and performance ratings shall be submitted in conformance to AMCA Publications 211 and 311. Fans must be Licensed to Bear the AMCA Certified Ratings Seal for Sound and Air Performance. Acceptable manufacturers whose equipment is not licensed to bear the AMCA Certified Ratings Seal for Sound and Air Performance must submit air and sound performance tests conducted in accordance with AMCA Standards 210 and 300, in a registered AMCA test facility, and certified for accuracy (stamped) by a registered professional engineer.
- B. Classification for Spark Resistant Construction; Conform to AMCA 99.
- C. Each fan shall be tested before shipping. Motors to be tested for amperage drawn.
- D. A certificate to be supplied with each fan as to quality control before shipping and compliance to specifications.

1.05 SUBMITTALS

- A. M. K. Plastics to submit product data on each PRVS.
- B. Provide fan curves for each fan at the specified operating point, with the flow, static pressure and horsepower clearly plotted.

PART 2 EQUIPMENT

2.01 GENERAL

- A. Base fan performance at standard conditions (density 0.075 Lb/ft³)

- B. Fans selected shall be capable of accommodating static pressure and airflow of scheduled values.
- C. Each fan shall be belt drive in arrangement #10 or according to drawings.

2.02 FAN HOUSING

- A. Fan housing to be aerodynamically designed with high-efficiency inlet, engineered to reduce incoming air turbulence. Casings to be smooth exterior and resin rich interior.
- B. Fan housing shall be manufactured in specifically formulated resins, for maximum corrosion resistance, UV inhibited and reinforced with fiberglass for structural strength. Fastening bolts holding the casing to the support plate are to be encapsulated in FRP. No coated metal fan parts will be allowed.
- C. Flame retardancy of 25 or less is to be provided in noted on the equipment schedule.
- D. Inside the casing, a FRP ridge to be attached to divert condensation from dripping over the hub.
- E. A casing drain attached to the casing at the lowest point for condensation removal shall be provided.
- F. Fan outlet to be flanged.
- G. Hub seal to be neoprene or Teflon (when required).
- H. Standard finish color to be light gray.

2.03 FAN IMPELLER

- A. Impellers should be solid molded FRP with flat radial blades. The hub to extend outside the casing. Impellers manufactured in steel and coated with a plastic material are not acceptable. The impeller shall be electronically balanced both statically and dynamically Grade GS.3 per AMCA 204-96 Standard.

2.04 FAN BASE SUPPORT

- A. Arr. #10 support to be manufactured in formed steel and to be baked polyester coated.
- B. An access panel to be standard to provide accessibility to the motor junction box.
- C. A one piece FRP weather cover to be provided with adequate motor ventilation.

2.05 FAN MOTORS AND DRIVES

- A. Motors to be TEFC and premium-efficiency with a 1.15 service factor.
- B. Belts and pulleys are to be accessible for service and maintenance.
- C. Shafts to be AISI -1045 carbon steel. The shaft shall not be in the corrosive air stream.
- D. Bearings shall be regreaseable spherical pillow block and have a minimum L-10 life of 200,000 hours life.
- E. Drive guard to be supplied and manufactured according to OSHA standards.
- F. Fans up to 5 HP motor to have variable pitch.

2.06 ACCEPTABLE MANUFACTURERS

- A. M.K. Plastics Corporation, Model PRVS

CONDITIONS OF SALE

1. Prices quoted are current, prices prevailing at time of shipping will apply. Material in stock is offered subject to prior sale. All Sales Contracts arising out of this quotation shall be subject to our regular conditions show on this side.

2. All deliveries quoted are based on availability of material and labor at the time of quotation and subject to change. Deliveries are contingent upon strikes, accidents, fires, and other causes and we shall not be liable for any loss or damage caused by delays beyond the control of the company.

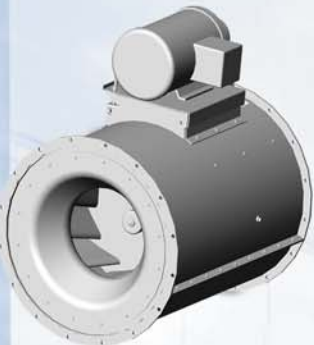
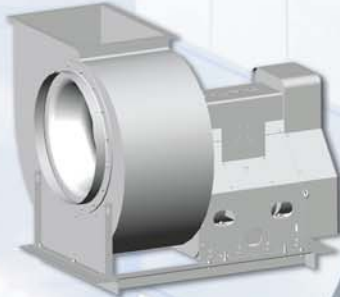
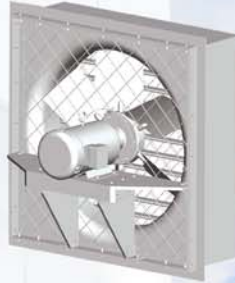
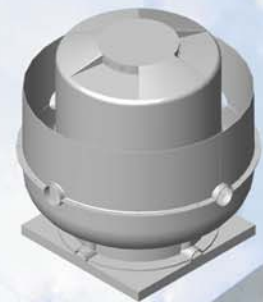
3. Goods invoiced up to and including the last day of the calendar month shall be paid for not later than the last business day of the following month. The company reserves the right to charge interest at commercial rates on any overdue account. Any order accepted by us cannot be countermanded, revised or cancelled without our written consent and upon such terms as will indemnify us against any loss. The word "loss" as used herein shall include, but not limited to, cost of materials, special machinery, tools, jigs and fixtures built or purchased for the contract and all parts in process, fabricated in whole or in part by previous customer authorization.

5. No contract arising from the acceptance of this quotation shall be valid and binding until approved by the company, such contract shall be governed by and interpreted in accordance with the laws of Province of Quebec.

6. All memoranda, drawings and information furnished by the company shall remain its property and shall be considered business or trade secrets received in trust and confidence for the sole purpose of assisting the buyer.

7. Orders to customer's drawings or descriptions are filled with the understanding that the customer assumes the obligation to protect M.K. Plastics Corp. from any action for infringements of patents.

8. No modification of the above conditions of sale shall be effected by our receipt or acknowledgement of a purchase order containing additional or different conditions.



LIMITATION OF WARRANTY AND LIABILITY

We will not be responsible for the damage to equipment or materials through improper installation, storage, improper servicing, or through attempts to operate it in excess of its rated capacity or recommended use, intentional or otherwise. We will not be responsible for consequential damage.

Based on the fact that M.K. Plastics Corp. has no direct control over the actual handling and use of its products in the field, M.K. Plastics Corp. does not assume any liability for any loss of customer or any personnel or any physical damages claimed by anyone due to a failure or cause attributed to the use of its products. In no event shall M.K. Plastics Corp. be responsible for consequential damages of any such defective material or workmanship, including but not limited to the buyer's loss of material or profit, increased expense of operation, downtime or reconstruction of the work and in no event shall M.K. Plastics Corp. obligation under this warranty exceed the original contract price of the defective item.

M.K. Plastics Corp. warrants its equipment, products and parts, to be free from defects in workmanship and material under normal use and service for one (1) year after delivery to the first user. Our obligation under this warranty being limited to repairing or replacing, at our option, without cost at our factory any part, or parts which shall, within such warranty period, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been defective.

M.K. Plastics Corp. will not be responsible for the cost of removal of a defective product or parts or the installation of a replaced product or parts, or for costs due for its removal, crating or shipping.

On account of variables including but not limited to, vibration, system noise characteristics, motor overloading or change in voltage conditions, the specifics of customer application of equipment or other system conditions, M.K. Plastics Corp. does not expressly warrant its equipment for any specific purpose.

The customer and its agents are responsible for the selection and application of M.K. Plastics Corp. products, including their fitness for the purpose and performance intended. Consequently, the customer on behalf of its agents assumes all liability related to the user/misuse, application and selection of the M.K. Plastics Corp.

M.K. Plastics
CORPORATION

SERVING THE NEEDS OF MODERN INDUSTRY

4955 De Courtrai Ave., Montreal, Quebec H3W 1A6

Trimex Building, Route 11, Mooers, NY 12958

Spiez, Switzerland

tel: (514) 871-9999 / (888) 278-9988

fax: (514) 871-1753

www.mkplastics.com

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