

PD PLUS®

Model 7000 Heavy Duty High Pressure Industrial Blowers

Bi-directional Rotation

- 17 Series - Horizontal Air Flow
- 46 Series - Vertical Air Flow

- 57 Series - Horizontal Flow, Single Envelope Gastight
- 81 Series - Vertical Flow, Single Envelope Gastight
- 64 Series - Horizontal Flow, Double Envelope Gastight
- 67 Series - Vertical Flow, Double Envelope Gastight

Model 7000 PD PLUS heavy duty industrial blowers are designed for high performance applications, up to 18 PSIG pressure boost or 17" Hg dry vacuum.

17/46 Series

This series has wide application in pneumatic conveying, wastewater treatment, and the general process industry where high pressure, high volume air is required. Seal areas are vented to atmosphere to relieve process pressure against the internal lip seals, and to provide oil-free air.

57/81 Series (Single Envelope Gastight)

This series is utilized in such applications as closed loop pneumatic conveying, fuel or process gas handling, or elevated pressure applications up to 100 PSIG discharge. Vent openings are tapped and plugged to prevent gas leakage, or may be plumbed to the inlet port. These fittings can also accept an inert gas purge for positive containment of the process gas.

64/67 Series (Double Envelope Gastight)

This series is built to laboratory standards where virtually complete sealing is required. In addition to the features shown on the 57/81 series, the drive shaft is mechanically sealed and the oil sumps are plugged to provide an even higher degree of leakage protection.

Flexibility by Design

Detachable mounting feet allow field conversion from horizontal to vertical flow, or vice versa without additional components.

Model Size	Max. Press. PSI	Max. Vac. (in. Hg)	Nominal Min. RPM @ Max. Disch. Press.	Nominal Max. RPM @ Max. Disch. Press.	Displ. CFR
7010	18	17	1700	3000	.593
7013	18	17	1650	3000	.752
7017	15	15	1150	3000	.983
7021	15	15	1150	3000	1.214
7026	12	15	1150	3000	1.503

Material Specifications:

- Housing: Cast iron
- End Plates: Cast iron
- End Covers: Cast iron
- Rotors: Ductile iron
- Shafts: Ductile iron cast integrally with rotor
- Bearings: Rotors - Double row ball
Drive shaft - Single row ball
- Drive Shaft: SAE 4140 forged alloy steel
- Gears: Heat treated alloy steel, helical cut
- Seals: 17/46 series - Lip and labyrinth type on rotor shafts; lip seal on the drive shaft
57/81 series - Mechanical and labyrinth type on rotor shafts; lip seal on the drive shaft
64/67 series - Same as 57/81 series plus mechanical sealing on the drive shaft
- Lubrication: Oil splash system, both ends

For elevated pressure applications, 57/81 series and 64/67 series are available with high pressure sealing and testing to allow discharge pressures as high as 100 PSIG (18 PSI nominal maximum pressure boost) *

* Blowers operating with a discharge pressure above 20 PSIG require mechanical rotor shaft sealing; above 25 PSIG requires hydrostatic testing and special high pressure seal leakage testing.

Maximum Efficiency

Model 7000 PD PLUS models include extended tip rotor profile for increased displacement and operating efficiency versus any other blower in its class.

Extra Capacity Oil Sumps

Oversized end covers for the largest oil capacity of any blower in its class. End covers also include external ribbing for applications where cooling water is not available. Oil drain plugs are O-ring sealed for protection against leakage.

Water Cooled End Plates

All 7000 PD PLUS models include M-D's exclusive water cooled end plates to provide cooling of lubricating oil with less than 1 GPM cooling water for high performance applications where external lubrication is not desired or practical.

Optional Lubrication Systems:

All 7000 PD PLUS models are available with either integral pressure or external pressure lubrication to provide positive bearing lubrication and filtration of lubricant for extreme applications. When optional lubrication systems are specified, the series numbers change as follows:

Standard Splash Lube	Optional External Pressure Lube	Optional Integral Pressure Lube
17/46 series	18/85 series	19/86 series
57/81 series	54/84 series	55/82 series
64/67 series	—	66/69 series

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Performance Tables

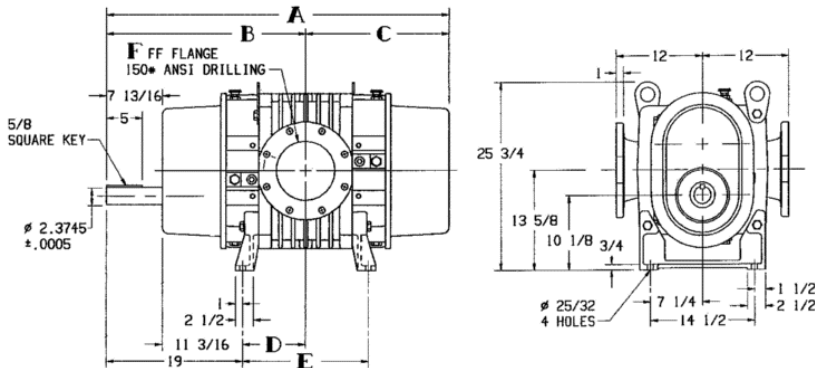
In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.

Pressure (14.70 PSIA and 70° F Inlet)

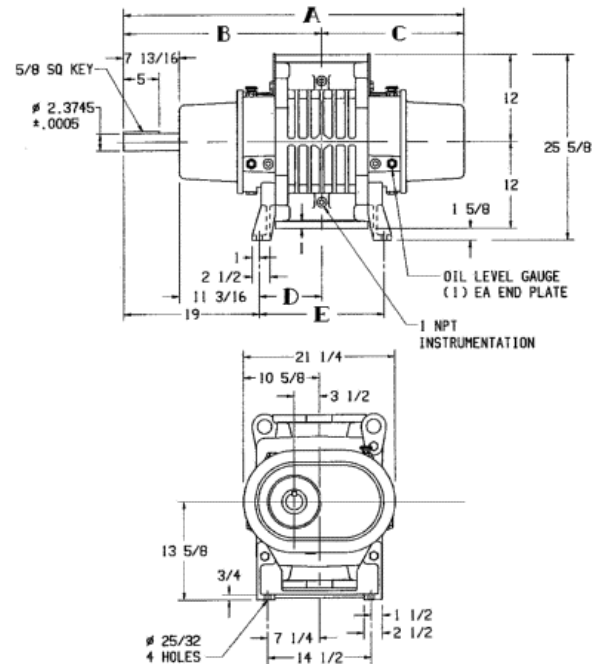
BLOWER MODEL	SPEED (RPM)	2 PSIG		5 PSIG		8 PSIG		10 PSIG		12 PSIG		15 PSIG		18 PSIG		Max. Vacuum		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	" Hg	CFM	BHP
7010	1200	586	9	513	18	460	27	431	33	403	40	367	49			15	370	25
	1800	942	13	869	27	816	41	786	50	759	59	723	73	690	87	17	677	42
	2400	1297	17	1225	36	1172	54	1142	67	1115	79	1079	98	1046	116	17	1032	56
	3000	1653	21	1580	45	1528	68	1498	83	1471	99	1434	122	1402	145	17	1388	71
7013	1200	749	10	660	22	596	34	560	42	527	50	483	61			15	487	31
	1800	1200	15	1111	33	1048	51	1011	63	978	74	934	92	894	110	17	878	53
	2400	1651	20	1563	44	1499	68	1463	83	1430	99	1385	122	1345	146	17	1329	70
	3000	2103	26	2014	55	1950	85	1914	104	1881	124	1836	153	1797	183	17	1780	88
7017	1200	985	13	872	28	790	43	744	54	703	64	647	79			15	651	40
	1800	1575	19	1462	42	1380	65	1334	81	1293	96	1237	119			15	1241	60
	2400	2165	25	2052	56	1970	87	1924	108	1882	128	1826	159			15	1830	80
	3000	2754	32	2641	70	2560	109	2514	134	2472	160	2416	199			15	2420	101
7021	1200	1225	15	1090	34	993	53	938	66	889	79	822	98			15	828	49
	1800	1953	23	1819	51	1721	80	1667	99	1617	118	1550	146			15	1556	74
	2400	2682	30	2547	68	2450	106	2395	132	2345	157	2279	195			15	2285	98
	3000	3410	38	3275	85	3178	133	3124	165	3074	196	3007	244			15	3013	123
7026	1200	1527	18	1366	42	1250	65	1186	81	1127	97					15	1054	60
	1800	2429	27	2268	62	2152	98	2088	121	2029	145					15	1955	90
	2400	3331	36	3170	83	3054	130	2989	162	2931	193					15	2857	120
	3000	4232	45	4072	104	3956	163	3891	202	3833	242					15	3759	151

Dimensions

Series 17/57/64 (Horizontal Flow)



Series 46/81/67 (Vertical Flow)



MODEL	A	B	C	D	E	F	NET WT. (LBS.)
7010	44.94	26.38	18.56	7.38	14.75	6 FLG	1050
7013	47.69	27.75	19.94	8.75	17.50	8 FLG	1150
7017	51.69	29.75	21.94	10.75	21.50	10 FLG	1275
7021	55.69	31.75	23.94	12.75	25.50	12 FLG	1450
7026	60.69	33.25	26.44	15.25	30.50	12 FLG	1600

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