

PD PLUS®

Model 9000 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 9000 PD PLUS heavy duty industrial blowers are designed for high performance applications, up to 15 PSIG pressure boost or 15" Hg dry vacuum (24" Hg water injected).

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 35 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.

MODEL SIZE	Max Press PSI	Max Vac (in. Hg)	Max. Comp. Ratio	Nom Min RPM @ Max Disch. Press	Nom Max RPM @ Max Disch. Press	Displ. CFR
9012	15	15	2.02:1	880	2400	.990
9016	15	15	2.02:1	880	2400	1.321
9020	15	15	2.02:1	880	2400	1.733
9027	15	15	2.02:1	880	2400	2.311

Material Specifications:

Housing: Cast iron

End Plates: Cast iron

End Covers: Cast iron

Rotors: Ductile iron

Shafts: Ductile iron cast integrally with rotor

Bearings: Rotor shafts - Double row ball

Drive shaft - Spherical roller

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 35 PSIG (15 PSI 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.

Optional Gearhead Drive:

All model 9000 PD PLUS models are available with M-D's exclusive integral speed increasing or decreasing gearhead allowing for more versatility in direct drive applications. Speed ratios available are:

Decreasing: 0.725:1 0.779:1 0.837:1 0.899:1

Increasing: 1.112:1 1.194:1 1.283:1 1.379:1

Optional Lubrication Systems:

All model 9000 PD PLUS models are available with integral 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 Integral Pressure Lube
17/46 series	19/86 series
57/81 series	55/82 series
64/67 series	66/69 series

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Performance Tables

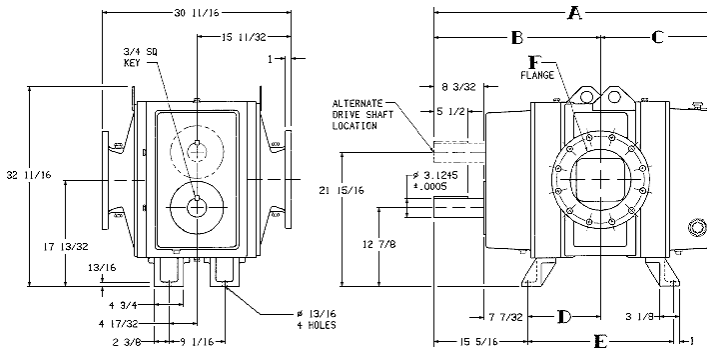
In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.

Pressure (14.70 PSIA and 70° F Inlet)

BLOWER MODEL	SPEED (RPM)	2 PSIG		5 PSIG		8 PSIG		10 PSIG		12 PSIG		15 PSIG		Max. Vacuum		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	" Hg	CFM	BHP
9012	600	454	7.2	373	15	314	23	281	28	—	—	755	78	13	261	19
	1150	998	14	917	29	858	44	825	53	796	63	1349	119	15	758	40
	1750	1592	21	1511	44	1452	66	1419	81	1390	96	1993	163	15	1352	62
	2400	2236	29	2155	60	2096	91	2063	112	2033	132	1993	163	15	1995	84
9016	600	606	8.9	497	19	419	30	375	37	—	—	1008	103	13	348	24
	1150	1332	17	1224	37	1146	57	1101	70	1062	83	1800	157	15	1011	53
	1750	2125	26	2016	56	1938	86	1894	107	1854	127	2659	215	15	1804	80
	2400	2984	36	2875	77	2797	119	2753	146	2713	174	2659	215	15	2663	110
9020	600	795	11	652	25	550	38	492	47	—	—	1322	134	13	457	31
	1150	1748	21	1605	47	1503	73	1445	91	1393	108	2322	204	15	1327	68
	1750	2788	32	2645	72	2543	112	2485	138	2432	165	3488	280	15	2366	103
	2400	3914	44	3772	99	3669	153	3611	189	3559	226	3488	280	15	3493	142
9027	600	1060	14	870	32	733	50	656	62	—	—	1763	178	13	610	41
	1150	2331	27	2141	62	2004	97	1927	120	1857	143	3149	270	15	1769	89
	1750	3717	49	3527	94	3391	147	3313	182	3244	217	4651	371	15	3156	136
	2400	5220	56	5030	129	4893	201	4816	250	4746	298	4651	371	15	4658	186

Shaded areas indicate operation requiring soft starting of motor. Direct/jackshaft drive or gearhead drive is required above 250 HP. Applications in shaded areas must be factory approved.

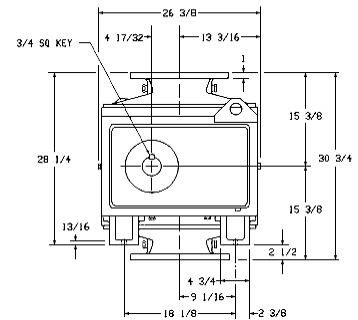
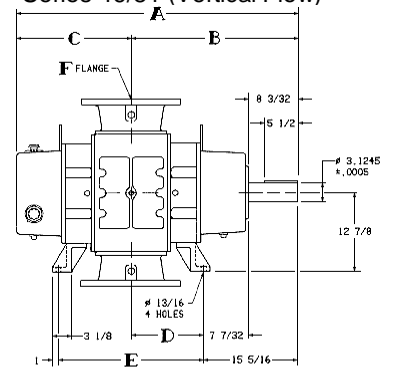
Dimensions Series 17/57 (Horizontal Flow)



MODEL	SERIES	A	B	C	D	E	F
9012	17/57 46/81	45.75	27.13	18.63	11.81	23.63	10" FLG
9016	17/57 46/81	49.69	29.09	20.59	13.78	27.56	12" FLG
9020	17/57 46/81	54.59	31.56	23.03	16.25	32.50	12" FLG
9027	17/57 46/81	61.50	35.00	26.50	19.69	39.38	14" FLG

Values are approximate and should not be used for construction. Certified drawings are available through your local M-D representative.

Series 46/81 (Vertical Flow)



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