

M-D Pneumatics™

# PD PLUS®

High Pressure Industrial Blowers

## Model 4000 Heavy Duty

Bi-directional Rotation

17 Series - Horizontal Air Flow

46 Series - Vertical Air Flow

57 Series - Horizontal Flow, Single Envelope Gas Service

81 Series - Vertical Flow, Single Envelope Gas Service

64 Series - Horizontal Flow, Double Envelope Gas Service

67 Series - Vertical Flow, Double Envelope Gas Service

Model 4000 PD PLUS heavy duty industrial blowers are designed for high performance applications, up to 18 PSI pressure or 17" 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 Gas Service)

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

### 64/67 Series (Double Envelope Gas Service)

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.

### Optional Cooling Coils:

All vertical flow 4000 PD PLUS models are available with cooling coils to provide cooling of lubricating oil with less than 0.5 GPM cooling water for high performance applications. Specify "W" suffix.



Model Size	Max. Press. PSI	Max. Vac. (in. Hg)	Nom. Min. RPM at Max. Disch. Pressure	Nom. Max. RPM at Max. Disch. Pressure	Displ. CFR
4009	18	17	2750	3600	.150
4012	15	15	1950	3600	.200

### Material Specifications:

**Housing:** Cast iron

**End Plates:** Cast iron

**End Covers:** Gear end - Cast iron  
Free end - Cast iron

**Rotors:** Ductile iron

**Shafts:** Ductile iron cast integrally with rotor

**Bearings:** Gear end - Double row ball  
Free end - Single row ball  
Drive shaft - Double row ball

**Drive Shaft:** SAE 4140 forged alloy steel

**Gears:** Alloy steel, helical cut

**Seals:** 17/46 series - Lip and labyrinth type on rotor shafts; lip seal on the drive shaft; less than 25 PSIG  
57/81 series - Mechanical and labyrinth type on rotor shafts; lip seal on the drive shaft; less than 25 PSIG  
64/67 series - Same as 57/81 series plus mechanical sealing on the drive shaft; greater than 25 PSIG\*

**Lubrication:** Oil splash system, both ends

\* Blowers operating with a discharge pressure above 25 PSIG requires hydrostatic testing and special high pressure seal leakage testing.



All PD Plus blowers are factory tested to meet ISO 9001 registered quality standards.

## Performance Tables

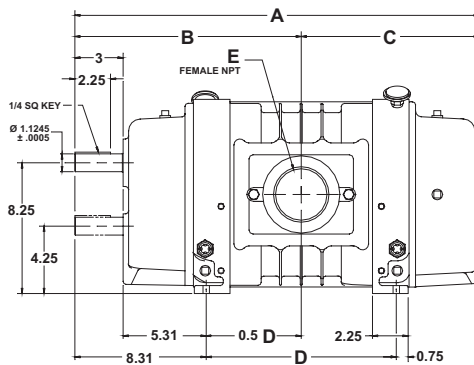
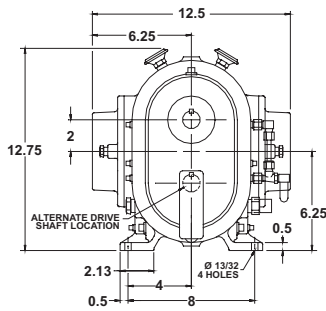
In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.

### Pressure (14.70 PSIA and 70° F Inlet)

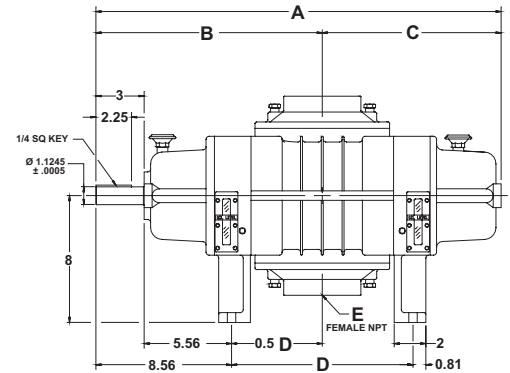
BLOWER MODEL	SPEED (RPM)	2 PSIG		5 PSIG		8 PSIG		10 PSIG		12 PSIG		15 PSIG		18 PSIG		Max. Vacuum		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	" Hg	CFM	BHP
4009	1150	111	2.5	75	4.7	49	7									10	54	4.7
	1450	156	3.1	120	5.9	94	8.8	80	11							12	81	6.8
	1750	201	3.7	165	7.2	139	11	125	13	112	15					14	106	9.3
	2950	381	6.3	345	12	319	18	305	22	292	26	274	31	258	37	16	264	18
	3600	478	7.7	443	15	417	22	402	27	389	32	372	38	355	45	17	349	23
4012	1150	155	3	111	6	80	9									8	107	5
	1450	215	4	171	8	140	11	122	14							11	135	8
	1750	275	5	231	9	200	14	182	17	166	20					12	184	11
	2950	515	8	471	15	440	23	422	28	406	33	385	41			13	412	19
	3600	645	9	601	19	570	28	552	34	536	41	515	50			15	516	26

## Dimensions

Series 17/57 (Horizontal Flow)



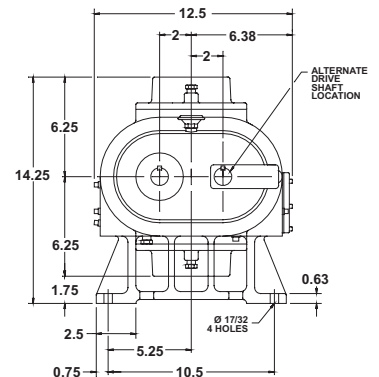
Series 46/81 (Vertical Flow)



MODEL	SERIES	A	B	C	D	E	Net Wgt. (lbs.)*
4009	17/57	25.63	14.31	11.31	12	3" NPT	275
	46/81				11.5		
4012	17/57	28.63	15.81	12.81	15	4" NPT	290
	46/81				14.5		

Values are approximate and should not be used for construction. Certain dimensions for 64/67 double envelope gas-service differ slightly from those shown above. Certified prints are available through your local Tuthill Vacuum & Blower Systems Sales Professional.

\*Approximate shipping weight.



Your Local Tuthill Vacuum & Blower Systems Sales Professional:

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2535 7th Avenue Suite 4  
Santa Cruz, CA 95062  
(831) 462-8900  
www.provac.com



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