

M-D Pneumatics™  
**PD PLUS™**

**Model 4000 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 4000 PD PLUS heavy duty industrial blowers are designed for high performance applications, up to 18 PSIG pressure boost 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 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.

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	4000	.150
4012	15	15	1950	4000	.200

**Material Specifications:**

**Housing:** Cast iron

**End Plates:** Cast iron

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

**Rotors:** Ductile iron

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

**Bearings:** Gear end - Double row ball  
 Free end and 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 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 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 where external lubrication is not desired or practical. Specify "W" suffix.

**Optional Lubrication Systems:**

All 4000 PD PLUS models are available with external 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
17/46 series	18/85 series
57/81 series	54/84 series
64/67 series	N/A



**Tuthill Vacuum & Blower Systems**

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## Performance Tables

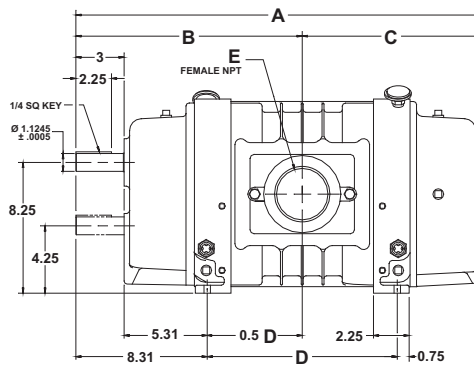
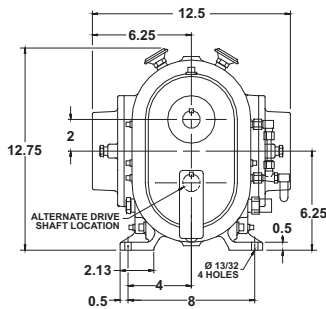
In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.

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

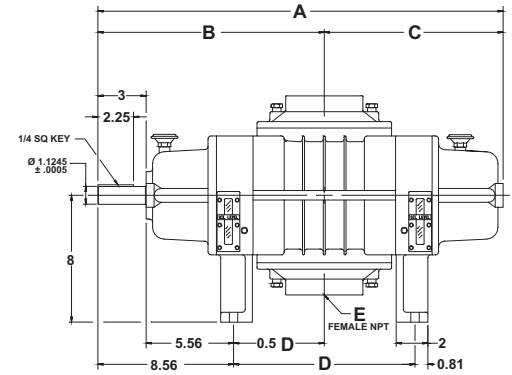
BLOWER MODEL	SPEED (RPM)	2 PSIG		5 PSIG		8 PSIG		10 PSIG		12 PSIG		15 PSIG		18 PSIG		Max. Vacuum		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	" Hg	CFM	BHP
4009	1150	111	2.5	75	4.7	49	7.0									10	54	4.7
	1450	156	3.1	120	5.9	94	8.8	80	11							12	81	6.8
	1750	201	3.7	165	7.2	139	11	125	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	165	3.0	125	6.0	96	9.1									11	91	6.5
	1450	225	3.8	185	7.6	157	12	140	14							13	131	9.4
	1750	286	4.6	246	9.2	217	14	201	17	186	20					14	180	12
	2950	530	7.7	490	16	461	23	445	29	430	34	410	42			15	412	22
	3600	662	9.4	622	19	593	29	577	35	562	41	542	51			15	544	27

## Dimensions

Series 17/57 (Horizontal Flow)

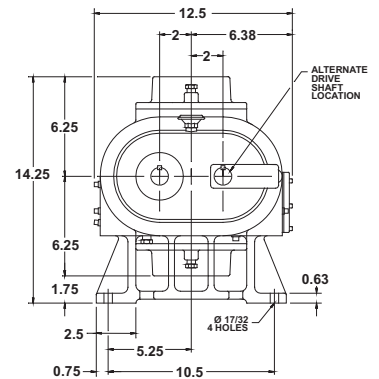


Series 46/81 (Vertical Flow)



MODEL	SERIES	A	B	C	D	E
4009	17/57				12	3" NPT
	46/81	25.63	14.31	11.31	11.5	
4012	17/57				15	4" NPT
	46/81	28.63	15.81	12.81	14.5	

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



Your Local Tuthill Vacuum & Blower Systems Sales Professional:



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