

## PD Plus®

### Model 4000 Heavy Duty

Bi-directional Rotation

Series Options:

Horizontal Air Service

Vertical Air Service

Horizontal Flow, Single Envelope Gas Service

Vertical Flow, Single Envelope Gas Service

Horizontal Flow, Double Envelope Gas Service

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). All models have sight glasses as a standard feature.

#### Vertical & Horizontal Standard Lip/Lab Seals

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.

#### Vertical & Horizontal 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.

#### Vertical & Horizontal 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 single envelope 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.

#### Special Materials

Stainless Steel\*

Ductile Iron

\*4009 only

#### Special Coatings

Bi-Protec® (Nickel/Armoly®)



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:** Standard - Lip and labyrinth type on rotor shafts; lip seal on the drive shaft; less than 25 PSIG  
Single Envelope Gas Service - Mechanical and labyrinth type on rotor shafts; lip seal on the drive shaft; less than 25 PSIG  
Double Envelope Gas Service - Same as Single Envelope 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 require hydrostatic testing and special high pressure seal leakage testing.

## 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.

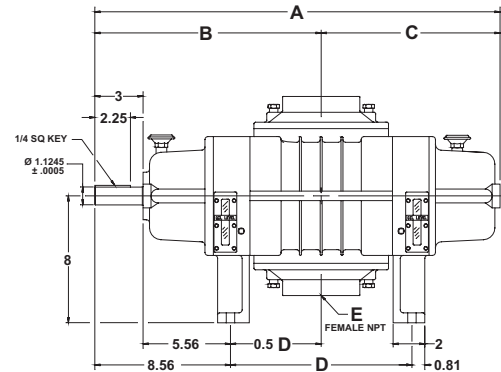
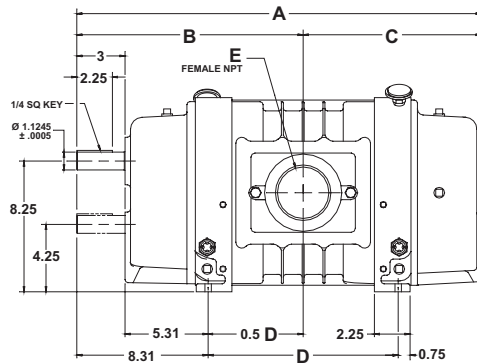
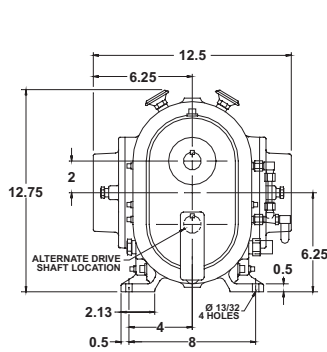
### Pressure (14.70 PSIA and 70° F Inlet)

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	385	41	13	412	19
	3600	645	9	601	19	570	28	552	34	536	41	515	50	515	50	15	516	26

## Dimensions

Horizontal Flow, Single Envelope Gas Service

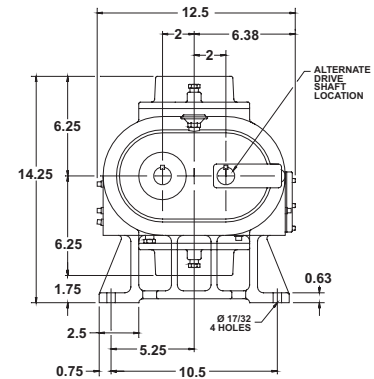
Vertical Flow, Single Envelope Gas Service



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

Values are approximate and should not be used for construction. Certain dimensions for 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:



Western Washington: 253-740-0530  
 Eastern Washington: 509-949-3368  
 Idaho & Montana: 208-360-3833  
 Oregon: 503-708-9609  
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