



M-D Pneumatics™  
**PD PLUS™**

**Model 3200 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 3200 PD PLUS heavy duty industrial blowers are designed for high performance applications, up to 15 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 |
|------------|-----------------|--------------------|---------------------------------------|---------------------------------------|------------|
| 3202       | 15              | 15                 | 3100                                  | 4000                                  | .026       |
| 3204       | 15              | 15                 | 2900                                  | 4000                                  | .042       |
| 3206       | 15              | 15                 | 2750                                  | 4000                                  | .063       |
| 3210       | 15              | 15                 | 2650                                  | 4000                                  | .105       |

**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:** Ductile iron

**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 (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 Cooling Coils:**

All vertical flow 3200 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 3200 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                             |

## Performance Tables

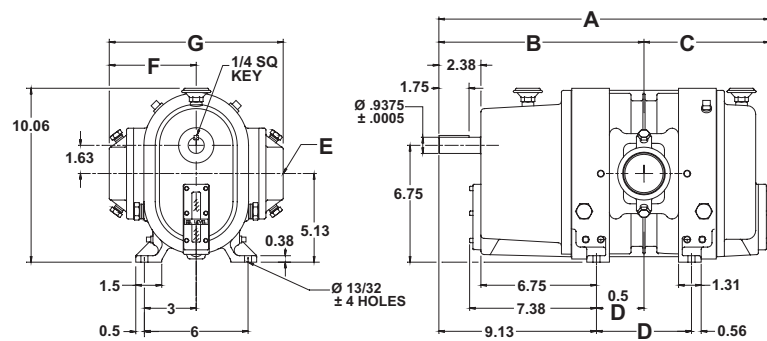
In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.

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

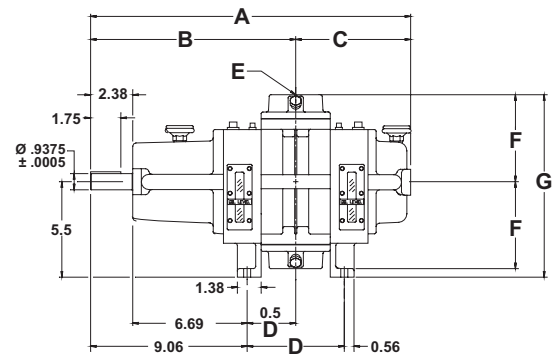
| BLOWER MODEL | SPEED (RPM) | 2 PSIG |     | 5 PSIG |     | 8 PSIG |     | 10 PSIG |     | 12 PSIG |     | 14 PSIG |     | 15 PSIG |     | Max. Vacuum |     |     |
|--------------|-------------|--------|-----|--------|-----|--------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-------------|-----|-----|
|              |             | CFM    | BHP | CFM    | BHP | CFM    | BHP | CFM     | BHP | CFM     | BHP | CFM     | BHP | CFM     | BHP | " Hg        | CFM | BHP |
| 3202         | 1150        | 17     | 0.9 | 8      | 1.3 |        |     |         |     |         |     |         |     |         |     | 8           | 7   | 1.2 |
|              | 1750        | 34     | 1.4 | 25     | 2.0 | 18     | 2.7 |         |     |         |     |         |     |         |     | 11          | 17  | 2.1 |
|              | 2950        | 67     | 2.4 | 58     | 3.4 | 52     | 4.5 | 48      | 5.2 | 45      | 6.0 |         |     |         |     | 14          | 43  | 4.1 |
|              | 3600        | 85     | 2.9 | 76     | 4.2 | 70     | 5.5 | 66      | 6.4 | 63      | 7.3 | 60      | 8.2 | 59      | 8.6 | 15          | 59  | 5.2 |
| 3204         | 1150        | 29     | 1.1 | 16     | 1.8 |        |     |         |     |         |     |         |     |         |     | 8           | 14  | 1.5 |
|              | 1750        | 56     | 1.7 | 43     | 2.7 | 33     | 3.7 |         |     |         |     |         |     |         |     | 11          | 31  | 2.8 |
|              | 2950        | 110    | 2.8 | 97     | 4.5 | 87     | 6.3 | 82      | 7.4 | 77      | 8.6 | 72      | 9.7 |         |     | 14          | 75  | 5.6 |
|              | 3600        | 139    | 3.4 | 126    | 5.5 | 116    | 7.7 | 111     | 9.1 | 106     | 11  | 101     | 12  | 99      | 13  | 15          | 100 | 7.2 |
| 3206         | 1150        | 45     | 1.3 | 26     | 2.3 |        |     |         |     |         |     |         |     |         |     | 9           | 20  | 2.1 |
|              | 1750        | 86     | 2.0 | 67     | 3.5 | 53     | 5.1 | 46      | 6.1 |         |     |         |     |         |     | 12          | 46  | 4.0 |
|              | 2950        | 167    | 3.4 | 148    | 6.0 | 134    | 8.6 | 127     | 10  | 120     | 12  | 113     | 14  |         |     | 15          | 111 | 8.0 |
|              | 3600        | 211    | 4.1 | 192    | 7.3 | 178    | 11  | 170     | 13  | 163     | 15  | 157     | 17  | 154     | 18  | 15          | 155 | 9.8 |
| 3210         | 1150        | 80     | 1.8 | 51     | 3.4 |        |     |         |     |         |     |         |     |         |     | 9           | 42  | 3.1 |
|              | 1750        | 147    | 2.7 | 118    | 5.2 | 98     | 7.8 | 86      | 9.5 |         |     |         |     |         |     | 12          | 87  | 6.0 |
|              | 2950        | 281    | 4.5 | 253    | 8.8 | 232    | 13  | 221     | 16  | 210     | 19  | 200     | 22  | 196     | 23  | 15          | 197 | 12  |
|              | 3600        | 354    | 5.5 | 326    | 11  | 305    | 16  | 293     | 20  | 283     | 23  | 273     | 27  | 269     | 28  | 15          | 270 | 15  |

## Dimensions

Series 17/57 (Horizontal Flow)



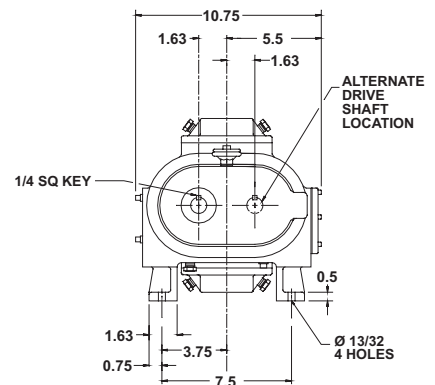
Series 46/81 (Vertical Flow)



| MODEL | SERIES | A     | B     | C     | D     | E        | F   | G    |
|-------|--------|-------|-------|-------|-------|----------|-----|------|
| 3202  | 17/57  | 17.63 | 11.13 | 6.5   | 4     | 1.5" NPT | 4   | 8    |
|       | 46/81  | 17    |       | 5.88  | 4.13  |          |     | 9.5  |
| 3204  | 17/57  | 19.13 | 11.88 | 7.25  | 5.5   | 2" NPT   | 5   | 10   |
|       | 46/81  | 18.5  |       | 6.63  | 5.63  |          |     | 10.5 |
| 3206  | 17/57  | 21.13 | 12.88 | 8.25  | 7.5   | 2.5" NPT | 5   | 10   |
|       | 46/81  | 20.5  |       | 7.63  | 7.63  |          |     | 10.5 |
| 3210  | 17/57  | 25.13 | 14.88 | 10.25 | 11.5  | 3" NPT   | 6.5 | 11   |
|       | 46/81  | 24.5  |       | 9.63  | 11.63 |          |     | 10.5 |

Values are approximate and should not be used for construction.

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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