Dia-Vac® gaseous diaphragm pumps and compressors have been used worldwide since 1971. These pumps are built for continuous use and have proven over time to be extremely reliable. The rugged & dependable Dia-Vac® pumps are an ideal choice for the environmental sampling, gas analysis, chemical processing, refinery, gas chromatography, medical devices and automotive emission testing industries.

The Dia-Vac® pump offers a wide variety of eccentric stroke options which allow you to customize the pump to meet your application requirements while at the same time increasing the life of both the diaphragm and the bearings. Every Dia-Vac® pump is factory tested to performance specs prior to shipment. ADI’s Standard Dia-Vac® pumps are available in a wide variety of options to suit almost any application you require. Requests for custom pump applications are always welcome.

**Features:**
- Performance range 0-150 LPM, 0-29.9” Hg, 0-75 PSIG
- Leak Free, Oil Free and contamination free sampling.
- High Quality
- Built for continuous reliable operation
- Extremely durable with low maintenance requirements
- Fast Shipments, emergency shipments within 24 hours
- Customized options available

**Wetted Parts:**
Aluminum, 316 Stainless Steel, Hastelloy C-(all available w/ Teflon® coating), Solid Teflon®, and Silicone® 3000 316 ss.

**Motor Options:**
General Purpose, Totally Enclosed Fan Cooled (TEFC), Explosion Proof-UL, CSA, ATEX, Brush DC and Air Driven.

**Additional Pump Options:**
- **Heated Head** - Prevents condensation buildup in the pump head. The Heated Head Dia-Vac® is designed to transport gas samples up to a maximum of 400°F (200°C).
- **Elevated and Extended Head Options** - an excellent choice allowing you to place the head inside a hot oven (up to 400°F) while the motor remains at ambient temperatures.
- **High Vacuum** - available in either Double or Quad Stage configuration with ultimate vacuum of 29.5” Hg in Double or 29.92” Hg for the Quad Stage Dia-Vac®.
- **Double Diaphragm**—This option allows for increased safety when transporting expensive or extremely hazardous gases. Should the primary diaphragm fail, the secondary diaphragm keeps the sample media intact.
- **Heavy Load motor options** - ADI can offer a variety of options for applications requiring starting under load conditions.

**Images:**
R221-AT-AA1, R222-BT-CA1, RVA4-FT-AA1

**Website:**
www.airdimensions.com

"We Pass Your Gas"
Standard Dia-Vac® Performance

ADI’s Dia-Vac® Pumps can Pass your Gas at the Speed of Need! Due to an increased interest in reducing the pressure, vacuum, and/or flow on the Dia-Vac® pumps, our engineers have designed a modified eccentric design. This allows you to customize your Dia-Vac® pump to meet your application requirements while at the same time increasing the diaphragm and bearing life. The normal eccentric size is .222 on Standard Dia-Vac® Pumps. Please see “How to Specify and Order Pumps at ADI” (below) or call the factory direct at 954-428-7333 or 1-800-423-6464 for more information.

Standard Flow Averages

<table>
<thead>
<tr>
<th>Model #</th>
<th>Eccentric</th>
<th>PSIG</th>
<th>Bar</th>
<th>InHg</th>
<th>Mbar</th>
<th>CFM</th>
<th>LPM</th>
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</thead>
<tbody>
<tr>
<td>R061</td>
<td>.060</td>
<td>5.7</td>
<td>.39</td>
<td>8.6</td>
<td>291</td>
<td>.34</td>
<td>9.7</td>
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<tr>
<td>R081</td>
<td>.080</td>
<td>8.4</td>
<td>.58</td>
<td>11.6</td>
<td>393</td>
<td>.45</td>
<td>12.7</td>
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<tr>
<td>R101</td>
<td>.100</td>
<td>10.4</td>
<td>.72</td>
<td>13.6</td>
<td>461</td>
<td>.47</td>
<td>13.3</td>
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<tr>
<td>R121</td>
<td>.120</td>
<td>15.0</td>
<td>1.04</td>
<td>16.1</td>
<td>545</td>
<td>.56</td>
<td>15.8</td>
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<tr>
<td>R151</td>
<td>.150</td>
<td>22.0</td>
<td>1.51</td>
<td>18.8</td>
<td>637</td>
<td>.65</td>
<td>18.6</td>
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<tr>
<td>R181</td>
<td>.180</td>
<td>33.0</td>
<td>2.27</td>
<td>21.4</td>
<td>725</td>
<td>.75</td>
<td>21.2</td>
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<tr>
<td>R201</td>
<td>.200</td>
<td>42.1</td>
<td>2.90</td>
<td>22.4</td>
<td>759</td>
<td>.82</td>
<td>23.4</td>
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<tr>
<td>R221 (Std.)</td>
<td>.222</td>
<td>53.0</td>
<td>3.66</td>
<td>24.0</td>
<td>812</td>
<td>.92</td>
<td>26.0</td>
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<tr>
<td>R251</td>
<td>.250</td>
<td>60.0</td>
<td>4.14</td>
<td>24.5</td>
<td>830</td>
<td>.97</td>
<td>27.4</td>
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<tr>
<td>R271</td>
<td>.275</td>
<td>70.0</td>
<td>4.83</td>
<td>25.4</td>
<td>860</td>
<td>1.06</td>
<td>30.0</td>
</tr>
<tr>
<td>R221 (HS)</td>
<td>.222 (High Speed)</td>
<td>59.7</td>
<td>4.10</td>
<td>23.8</td>
<td>805</td>
<td>1.34</td>
<td>38.2</td>
</tr>
<tr>
<td>R222 (para/series)</td>
<td>.222 (double)</td>
<td>59.7</td>
<td>4.10</td>
<td>23.8</td>
<td>805</td>
<td>1.34</td>
<td>38.2</td>
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<tr>
<td>RVA2 (series) High Vac Double</td>
<td>N/A</td>
<td>N/A</td>
<td>29.5</td>
<td>998</td>
<td>1.0</td>
<td>28.0</td>
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<tr>
<td>R222 (para/series)</td>
<td>.222 (double High Speed)</td>
<td>67.5 / 100</td>
<td>4.65</td>
<td>24.1 / 28.6</td>
<td>816 / 968</td>
<td>2.57 / 1.29</td>
<td>72.7 / 36.5</td>
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<tr>
<td>R224 (para/series)</td>
<td>.222 (Quad)</td>
<td>55 / 100+</td>
<td>3.8 / 7.0+</td>
<td>24 / 29.5</td>
<td>812 / 998</td>
<td>3.5 / .95</td>
<td>100 / 27</td>
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<tr>
<td>RVA4 (Series) High Vac Quad</td>
<td>N/A</td>
<td>N/A</td>
<td>29.90</td>
<td>1013</td>
<td>1.15</td>
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</tbody>
</table>

- Continuous pressure in excess of 75 PSI should be avoided due to decreased diaphragm and bearing life.
- Test results are approximate. These test results are for reference only, and are intended to help provide information to the user when determining which pump to buy.
- Reduce flow 17% for 50 Hz.

How to Specify and Order Pumps from Air Dimensions, Inc.

<table>
<thead>
<tr>
<th>CAPACITY</th>
<th>WETTED MATERIALS</th>
<th>POWER</th>
<th>OPTIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>R=Std.</td>
<td>HEAD DIAPHRAGM</td>
<td>TYPE</td>
<td>VOLTS</td>
</tr>
<tr>
<td>27</td>
<td>A=Alum</td>
<td>A=Gen Pur.</td>
<td>A=115</td>
</tr>
<tr>
<td>1</td>
<td>Encapsulated*</td>
<td>B=Gen Pur. HS</td>
<td>B=230</td>
</tr>
<tr>
<td>25</td>
<td>F=Teflon/Viton</td>
<td>C=TEFC</td>
<td>C=115 230 2=50 1Ph</td>
</tr>
<tr>
<td>2</td>
<td>N=EPDM</td>
<td>D=Air Driven</td>
<td>D=220/380 3=60 3Ph</td>
</tr>
<tr>
<td>22</td>
<td>G=316 ss (TefCo)</td>
<td>E=XP (Gr CD)</td>
<td>E=230/460 4=50 3Ph</td>
</tr>
<tr>
<td>3</td>
<td>P=All Teflon</td>
<td>G=XP/ATEX/IIC</td>
<td>G=460</td>
</tr>
<tr>
<td>20</td>
<td>H=Hast C</td>
<td>J=Brush DC</td>
<td>J=575</td>
</tr>
<tr>
<td>4</td>
<td>T=EPDM</td>
<td>M=TEFC 1/2 HP</td>
<td>M=H=12(1DC)</td>
</tr>
<tr>
<td>18</td>
<td>J=Hast C (TefCo)</td>
<td>N=XP (Gr CD)1/2 HP</td>
<td>N=S=J=24(1DC)</td>
</tr>
<tr>
<td>5</td>
<td>V=Viton</td>
<td>R=XP (Gr: BCD UL)</td>
<td>R=K=90</td>
</tr>
<tr>
<td>15</td>
<td>L=Siliconert®</td>
<td>X=Not Applicable</td>
<td>X=N/A</td>
</tr>
<tr>
<td>6</td>
<td>T=Teflon</td>
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<td>12</td>
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</tr>
<tr>
<td>06</td>
<td></td>
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</tr>
</tbody>
</table>

*Solid Teflon only

Example: R221-FT-AA1 - Single Head Dia-Vac® pump, with 316 ss wetted parts, Teflon/EPDM diaphragm, 115v/60Hz General Purpose motor

Note that ADI will always attempt to accommodate any custom application that you may have. Please contact the factory for more information.

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Deerfield Beach, FL web: www.airdimensions.com
33442

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