

# MINI DIA-VAC® DIAPHRAGM SAMPLING PUMPS

SINGLE AND DOUBLE  
STAGE DIAPHRAGM  
PUMPS AND  
COMPRESSORS



Meet ADI's Mini Dia-Vac®, the workhorse pump in our stable. The Mini Dia-Vac® pumps are completely self contained and may be used for either built in or portable applications. They are designed as a combination vacuum/pressure pump so you can mount the Mini Dia-Vac® in mid-stream and push or pull air to either end of your system. The Mini Dia-Vac® pumps are ideal for use in laboratories, industrial plants, process control, environmental and remote sampling as well as an ideal choice for OEM customers requiring customized gaseous vacuum/pressure sampling applications.

With the special capacitor run feature and oversized fan, the durable Mini Dia-Vac® is designed to provide you with cooler operating temperatures than many other pumps of its size on the market. You can count on the Mini Dia-Vac® for continuous operation, even under load conditions. This pump has heavy duty bearings and built in overload protection in the motor. The Mini Dia-Vac® is also available with ATEX certified EExd IIC,T4,IP65 as well as Air Driven motors for explosion proof and non-spark applications. The Mini Dia-Vac® general purpose motors are UL Listed , CSA and CE approved.

Choose either the single or dual stage design to meet your specific requirements...and let our Mini Dia-Vac® pump start to pass your gas!

Some of the outstanding quality features of the Mini Dia-Vac® include:

- CE approved
- Complete field serviceability
- Continuous operation
- General Purpose, 12-24 V. Brush and Brushless DC, ATEX certified and Air Driven motor options
- Corrosion resistant options
- Wetted parts made of chemically inert material to system performance requirements
- Capacitor-run feature
- Oversized fan to keep motor cool
- Oversized bearings and motor shaft
- Exceptionally quiet at all pressures
- Low maintenance with minimal vibration
- No risk of damage even when inlet or outlet becomes blocked
- Will customize the Mini Dia-Vac® to your specific application



### **M161-BT-GB2**

Single Head Mini Dia-Vac® with ATEX Certified Motor



### **M162-BT-AA1**

Double Head Teflon® coated 316 Stainless Steel Mini Dia-Vac®



### **M161-BT-AA1**

Single Head Teflon® coated Aluminum Mini Dia-Vac®

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**"We Pass Your Gas"**

## Specifications:

<b>Connecting Rod Material</b>	Aluminum	<b>Weight</b>	8lbs. Single, Aluminum 9lbs. Double Aluminum
<b>Motor</b>	1/15 HP, permanent split with 5 UF capacitor	<b>Port Connections</b>	1/4 NPT
<b>Ambient Temperature</b>	40° C	<b>Electrical</b>	115V, 50/60HZ 1.7 amps 230V, 50/60HZ 0.8 amps

## Mini 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 designed a modified eccentric. 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 standard eccentric size is .160 on the Mini Dia-Vac® pumps.

### Flow Average Mini Dia-Vac®

Eccentric Size	PSIG	bar	InHg	mbar	CFM	LPM
.080	6.0	0.41	7.0	237	.44	12.5
.100	17.0	1.17	17.0	575	.47	13.5
.120	21.0	1.43	18.0	600	.64	18
.150	27.0	1.86	20.0	676	.72	20.0
.160 (std)	30.0	2.07	22.0	745	.78	22.0
.160 (dbl.)	33.0	2.27	27.0	913	1.28	36.2

- Test Results are approximate.
- Tests performed with 316 stainless steel head, Teflon®/EPDM diaphragm, 3/8 in. diameter hose x 5 ft. line at 75°F, using a std. 1725 rpm motor at 60Hz.
- These test results are for reference only, and are intended to help provide information to the user when determining which pump to buy. Actual pump performance will depend upon the users application.
- Please visit the ADI website at : [www.airdimensions.com](http://www.airdimensions.com) for complete performance curves.

## How to Specify and Order Pumps from Air Dimensions Incorporated

CAPACITY		WETTED MATERIALS		POWER			OPTIONAL
STYLE	ECC. HEADS	HEAD	DIAPHRAGM	TYPE	VOLTS	Hz	OPTIONS
M=Mini	17    1 16*    2 15 14 12 10 08	A=Alum B=Alum (TFECo) F=316ss G=316ss (TFECo) H=Hast C J=Hast C (TFECo) K=Kynar (PVDF) P=Electro Polish	E=Encapsulated N=EPDM P=All Teflon *T=Tef/EPDM V=Viton	A=Gen. Pur. D=Air Driven G=XP/ATEX/IIC H=Brushless DC J=Brush DC U=XP/ATEX/IIB	A=115 B=230 H=12(DC) J=24(DC) X=N/A	0=N/A 1=60 1Ph 2=50 1Ph	L=Elevated Head M=Heated w/K Thermocouple M2=Heated 65° Thermostat M3=Heated 100° Thermostat M4=Heated 140° Thermostat M5=Heated 163° Thermostat M6=Heated 200° Thermostat
	*Std. Eccentric		*Std. Diaphragm				

### EXAMPLE:

MI61-FT-AAI : SINGLE STAGE MINI DIA-VAC® W/ SS HEADS, .160 ECC., TFE/EPDM DIAPHRAGM, 115V/60HZ MOTOR

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

**954-428-7333 • 800-423-6464**

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