Dia-Vac® Diaphragm Sampling Pumps

Explosion Proof Diaphragm Pumps For Hazardous Atmospheres

The Explosion proof Dia-Vac® pumps are used worldwide in hazardous atmospheres within the Petroleum, Refinery, Chemical, Utility and Pharmaceutical industries. These economical leak-free diaphragm gaseous sampling pumps are also an ideal choice for OEM customers, as the durable explosion proof Dia-Vac® pump can be custom designed and built for your specific applications.

ADI's rugged explosion proof Dia-Vac® pumps are available from inventory with the following motor classifications:

Motor	Classifications
Div. 1 Group B (Std. Dia-Vac® only)	UL Listed Class I, Division I, Group B, C and D Explosion Proof
Div. 1 Group C/D (Std. Dia-Vac® only)	UL and CSA listed Class I, Division I, Group C and D Explosion Proof
Div. 2 Group A/B/C/D (Mini Dia-Vac® only)	UL listed Class I, Division II, Group A/B/C/D Hazardous Area
ATEX Certified (Std. & Mini Dia-Vac®)	EExd IIC T4 IP 65 ATEX certified, available in 1,2,and 4 head Standard configurations as well as the single head Mini Dia-Vac® models. CE approved.
Air Driven (Std. & Mini Dia-Vac®)	The non electric air driven motors will cover all of your hazardous sampling classification requirements. Available in Standard and Mini Dia-Vac® models.

The exceptionally quiet Dia-Vac® is designed to operate for long periods of time without maintenance. The dependable Dia-Vac® pumps will not contaminate your sample and no oil, graphite or other contaminating lubricants will come in contact with the sample stream. Wetted parts are available with many options, including ADI's new Solid Teflon® option, in order to meet your most corrosive applications. Please refer to the back page

R221-GT-RA1
Single Head XP- Group B
UL-Div. I B/C/D Dia-Vac® Pump

R221-FT-EA1-L
Single Elevated Head XP
UL-Div. I C/D Dia-Vac® Pump

R222-FT-GB2
Double Head XP– ATEX Certified
EExd IIC T6 IP 65, Zone 1, II 2 G
Dia-Vac® Pump

R222-FT-EA1-E
Double Extended Head XP
UL-Div. I C/D Dia-Vac® Pump

"We Pass Your Gas"

(03/09)

Specifications:

Diaphragm Material	See Key Below	**Electrical**	See Key Below
Head Material	See Key Below	**Weight**	1-Stage –30lbs. With base plate 2-Stage –36lbs. With base plate
Body Material	Cast Aluminum	**Gas temp Range**	30˚ to 400˚ F
Connecting Rod Material	Cast Aluminum	**Port Connections**	1/4 NPT
Motor 1 or 2 Stage	1/6 HP, 5/8 in. shaft	**Ambient Temperature**	140˚F

Explosion Proof 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 normal eccentric size is ..222 on Standard Dia-Vac® Pumps.

Standard Flow Averages

Model #	Eccentric	PSIG	Bar	InHg	Mbar	CFM	LPM
R061	.060	5.7	.39	8.6	291	.34	9.7
R081	.080	8.4	.58	11.6	393	.45	12.7
R101	.100	10.4	.72	13.6	461	.47	13.3
R121	.120	15.0	1.04	16.1	545	.56	15.8
R151	.150	22.0	1.51	18.8	637	.65	18.6
R181	.180	33.0	2.27	21.4	725	.75	21.2
R201	.200	42.1	2.90	22.4	759	.82	23.4
R221 (Std.)	.222	53.0	3.66	24.0	812	.92	26.0
R251	.250	60.0	4.14	24.5	830	.97	27.4
R271	.275	70.0	4.83	25.4	860	1.06	30.0
R222 (Para/Series)	.222 (Double)	59.7 / 70+	4.10 / 4.8+	24.3 / 28.5	819 / 965	1.73 / .93	49.1 / 26.3

- 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.

CAPACITY			-	WETTED MATERIALS		-	POWER			-	OPTIONAL
STYLE	ECC.	HEADS		HEAD	DIAPHRAGM		TYPE	VOLTS	Hz		OPTIONS
R=Std.	27	1		A=Alum	E=Encapsulated*		E= XP (Grp CD UL)	A=115	1=60 1Ph		D= Double Diaphragm
	25	2		B=Alum (TefCo)	F=Teflon/Viton		G= XP/ATEX/IIC	B=230	2=50 1 Ph		M8=Heated Steam
	22	4		F=316ss	P=All Teflon		R= XP (Grp BCD UL)	E=230/460*	3=60 3 Ph		
	20			G=316ss (TefCo)	T=Tef/EPDM				4=50 3 Ph		
	18			H=Hast. C	V=Viton						
	15			J=Hast. C (TefCo)							
	12			L=SilcoSteel							
	10			T=Solid Teflon							
	08										
	06										

*Solid Teflon only

*3 Ph

Example:
R221-FT-EA1—Single Head Dia-Vac pump, .222 Eccentric, 316 ss wetted parts, Teflon/EPDM diaphragm, 115v/60Hz Cl. I Div. I mtr.

"We Pass Your Gas"