

THE R-SERIES XP[®]

Hazardous Area Diaphragm Sampling Pumps

Explosion Proof for Hazardous Atmospheres and Media



An Ingersoll Rand Business

Based on the rugged and time-tested R-Series Dia-Vac[®] pump, the R-Series Explosion proof pump is intrinsically safe and will not create a spark under normal operation.

Featuring a Totally Enclosed motor, the Explosion Proof R-Series is designed for use in potentially explosive and flammable areas including Division/Zone 1 and Division/Zone 2. For Zone 1, It's thermally protected design means that the motor will power off if the temperature exceeds its limit.

Designed for continuous use, manufactured using **316 stainless steel wetted parts**, and utilizing certified **ATEX**, IECEx, CSA, or NEC certified hazardous area motors, the R-Series Dia-Vac[®] is the workhorse pump perfectly fit for potentially explosive gas sampling applications often found in **Continuous Emissions Monitoring Systems (CEMS)**, **Fence-Line Monitoring** and **Gas Process Analytics**.



EXPLOSION PROOF

Motor options, including Air-Driven, ATEX, IECEx, NEC, CSA, KOSHA, PESO, InMetro and more.



HIGHLY CONFIGURABLE to your specific needs

The R-Series Dia-Vac[®] modular design allows for customizations such as Elevated or Extended Heads, Double Diaphragms for safety, Ringed head for increased gas tightness, and various Explosion Proof Motor options.



MADE IN THE USA AND AVAILABLE FOR QUICK DELIVERY!

The R-Series Dia-Vac[®] is manufactured on-site at ADI's headquarters in Florida, USA so our experts can assemble most pumps to match your application in a short amount of time – as fast as same day in emergencies.



LONG LASTING, EASY TO MAINTAIN

The R-Series is built for continuous operation so your uptime is maximized. Its high quality components made from state-of-the-art materials make the R-Series Dia-Vac[®] truly a dependable component of your gas sampling system.

INDUSTRIES SERVED



REFINERIES/
PETROCHEMICAL



CHEMICAL



PHARMACEUTICAL

YOUR BENEFITS



DURABLE

rugged design built to withstand particularly harsh environments.



RELIABLE

long product lifespan and easily field serviceable.



HIGHLY CUSTOMIZABLE

single, double, and quadruple head configurations with performance from 10 to 150 liters per minute (LPM).



LOW TOTAL COST OF OWNERSHIP (TCO)

compared to industry standards due to low maintenance requirements, long-life high-quality components, and reasonably priced service kits.



ATEX, IECEx, CSA, NEC

certified options available to meet your regional safety requirements

APPLICATIONS



GENERAL GAS SAMPLING, ANALYSIS,
AND MONITORING



FENCE LINE MONITORING



GAS CHROMATOGRAPHY



EMISSIONS TESTING

MOTOR OPTIONS

Motor Type	Certifications
Division 1	Class I, Division I, Group B, C and D Explosion Proof. UL/CSA listed.
Division 2	Class I, Division II, Group A/B/C/D Hazardous Area. UL approved.
ATEX Certified	Zone 1 EExd II2G IIC T4 IP66 ATEX certified. CE approved.
IECEX Certified	Zone 1 EExd II2G, IIC T4 IP66 IECEX certified. CE approved.
Air Driven	Zone 1 II2GD c IIB 95°C X. Non-electric motor

R-SERIES® FLOW AVERAGES

Model #	Eccentric	PSIG	Bar	InHg	Mbar	CFM	LPM
R061	0,060	5,7	0,39	8,6	291	0,34	9,7
R081	0,080	8,4	0,58	11,6	393	0,45	12,7
R101	0,100	10,4	0,72	13,6	461	0,47	13,3
R121	0,120	15,0	1,04	16,1	545	0,56	15,8
R151	0,150	22,0	1,51	18,8	637	0,65	18,6
R181	0,180	33,0	2,27	21,4	725	0,75	21,2
R201	0,200	42,1	2,90	22,4	759	0,82	23,4
R221 (Std.)	0,222	53,0	3,66	24,0	812	0,92	26,0
R251	0,250	60,0	4,14	24,5	830	0,97	27,4
R271	0,275	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

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.

HOW TO ORDER

How to specify and order pumps from Air Dimensions.

CAPACITY			WETTED MATERIALS		POWER			OPTIONS	
STYLE	ECC.	HEADS	HEAD	DIAPHRAGM	TYPE	VOLTS	Hz	OPTIONS	
R=Standard	27	1	A=Alum	E=Encap. Tef/EPDM*	D=Air	A=115	0=N/A	<ul style="list-style-type: none"> A=416ss Valve Discs D=Double Diaphragm E2=Extended Head L=Elevated Head P=Epoxy coat for offshore M8=Heated Steam (XP) X=Rotate Housing 90° CW Y=Rotate Housing 90° CCW Z=Rotate Housing 180° 	
	25	2	B=Alum (TEF-Co)	N=EPDM	N=XP(Gr CD) 1/2 HP	B=230	1=60 1Ph		
	22	4	F=316ss	P=All Teflon	Q=ATEX/IECEX (IIC) .55kW	D=220/380	2=50 1Ph		
	20	8	G=316ss (TEF-Co)	T=Tef/EPDM	R=XP Gr.B,C,D (UL) 1/6 HP	E=230/460	3=60 3Ph		
	18		H=Hast C	V=Viton	V=XP (C,D) 1HP	X=N/A	4=50 3Ph		
	15		J=Hast C (TEF-Co)		Y=ATEX/IECEX (IIC) .37kW				
	12		L=SilcoNert™2000 316ss						
	10		P=Electro Polish						
	08		T=Teflon						
	06								

*Teflon Head Only
 Example: R221-FT-AA1 = Single Head Dia-Vac pump, 316 ss wetted parts, Teflon/EPDM diaphragm, 115v/60Hz GP motor
 Please note that ADI will always attempt to accommodate any custom applications that you may have.



OVER 50 YEARS OF EXCEEDING INDUSTRY STANDARDS

Built to exceed industry standards, ADI's pumps have long been known as premium quality products designed to stand up to the rigorous demands of gas sampling and monitoring even in the harshest environments. Whatever the application, our range of products and manufacturing capabilities allow us to meet your exact requirements.