

M-SERIES DIA VAC[®]

Diaphragm Sampling Pumps

single head / double head



An Ingersoll Rand Business

The M-Series Dia-Vac[®] pumps are completely **self-contained** diaphragm sampling pumps frequently used on mobile stack testing trailers, and also easily integrated into OEM enclosed systems to provide a turnkey solution. Designed as a **combination vacuum and pressure pump**, the M-Series can be mounted mid-stream as well as set up to push or pull gas samples into your system. The M-Series can easily handle the rigors of Continuous Emissions Monitoring Systems (CEMS).

Designed to be versatile, the M-Series offer a choice of motors, including dual voltage 115v/230v, dual cycle 50/60 Hz AC, general purpose, and hazardous area motors (UL Division II). In addition, **single and double head** configurations are available, and an **elevated head option** keeps the motor safe and away from high temperatures. A **heated head option** allows the M-Series to keep the medium in a stable gaseous state to **maintain sample integrity**, prevent condensate build-up, and **reduce pump corrosion**.

The **robust construction** of the M-Series features an oversized fan to allow it to run at cooler operating temperatures, heavy-duty bearings, and built-in overload protection that maximize uptime in **continuous use operations**. Flow rates from **12 to 36 liters per minute (LPM)** are available for high-flow applications to maximize your response time, as is **adjustable eccentric sizing** for greater adherence to system performance requirements.



YOUR BENEFITS



HIGHLY CONFIGURABLE

to your specific needs. The M-Series can be customized with a heated head, elevated head, plus various motor options, including hazardous area.



DURABLE

Wetted components make it highly resistant to chemicals, moisture and corrosion. A Blocked inlet or outlet poses no risk of damage to the pump.



QUALITY COMPONENTS

Made of 316 Stainless Steel, Teflon and Aluminum, the M-Series offers low vibration and quiet operation at all pressures.

APPLICATIONS

CEMS CONTINUOUS EMISSIONS
MONITORING SYSTEMS (CEMS)



**PROCESS ANALYSIS AND MONITORING
SYSTEMS**



GENERAL GAS SAMPLING



LOW MAINTENANCE AND RELIABLE

Long product lifespan and easily field serviceable. Made of chemically inert material to keep sample integrity. Able to handle small amounts of liquid during operation.



LOW COST TO PERFORMANCE RATIO!

Low price of entry, low maintenance requirements, long-life high-quality components, and reasonably priced service kits make the M-Series the **Total Cost of Ownership (TCO)** leader.



MADE IN THE USA AND AVAILABLE FOR QUICK DELIVERY!

Manufactured on-site at ADI's headquarters in Florida, allowing our experts to assemble pumps to match your application in a short amount of time.

INDUSTRIES SERVED



REFINERIES/
PETROCHEMICAL



LABORATORIES



CHEMICAL



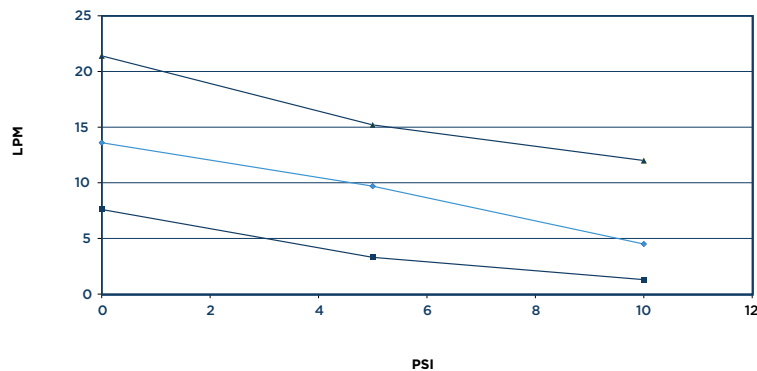
ENVIROMENTAL



GENERAL INDUSTRY
AND MANUFACTURING

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COMBINATION CURVE



- Test results are averaged, and therefore should be considered approximate.
 - 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' applications.
 - For 50 Hz operation, reduce output by 17%.

One of the key benefits of the Dia-Vac® pump is its ability to act as a vacuum pump, compressor, or both depending on the application.

Instead of showing a traditional performance curve, that only shows the unit as a vacuum pump OR a compressor, the combination curve illustrates the relationship between (inlet) vacuum, (outlet) pressure, and flow rate. The primary benefit compared to a traditional performance curve is that it covers applications where the pump is providing both vacuum and pressure at a given flow rate instead of just pressure OR vacuum at a given flow rate.

M-SERIES DIA-VAC® PERFORMANCE

Eccentric Size	PSIG	bar	InHg	mbar	CFM	LPM
0.080	6.0	0.41	7.0	237	0.44	12.5
0.100	17.0	1.17	17.0	575	0.47	13.5
0.120	21.0	1.43	18.0	600	0.64	18.0
0.150	27.0	1.86	20.0	676	0.72	20.0
.160 (std)	30.0	2.07	22.0	745	0.78	22.0
.160 (dbl.)	33.0	2.27	27.0	913	1.28	36.2

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		MOTOR			OPTIONS
STYLE	ECC.	HEADS	HEAD	DIAPHRAGM	TYPE	VOLTS	Hz	OPTIONS
M=M-Series	16	1	A=Alum		C=Gen. Purpose	A=115	0=N/A	- L=Elevated Head - M=Heated w/K Thermocouple - M1=Heated w/RTD - M2=Heated 65° T-stat - M3=Heated 100° T-stat - M4=Heated 140° T-stat - M5=Heated 163° T-stat - M6=Heated 200° T-stat
	15	2	B=Alum (TefCo)		W=XP Div.2	B=230	1=60 1Ph	
	14		F=316ss	P=All Teflon	Z=ATEX Zone 2 IIC	X=N/A	2=50 1Ph	
	12		G=316ss (TefCo)	T=Tef/EPDM				
	10		H=Hastelloy C					
	08		J=Hast. C (TefCo)					
			L=Silconert®316ss					

Example: M161-FT-CA1 = Single Head M-Series Dia-Vac® pump, 316 ss wetted parts, Teflon®/EPDM diaphragm, 115v/60Hz motor



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.