

MFL **NEW** Series of Vacuum Generators



Specifically Designed to Reduce Size & Weight while Providing High Vacuum Flow for Fast Evacuation

Big Performance In A Small Package

- Vacuum Flow: to 19.5 scfm
- Vacuum Level: 27.2”Hg
- Light Weight: 11.5 oz.
- Compact: 7/8” x 1-7/8” x 6-1/2”

Efficient Multi-Stage Design

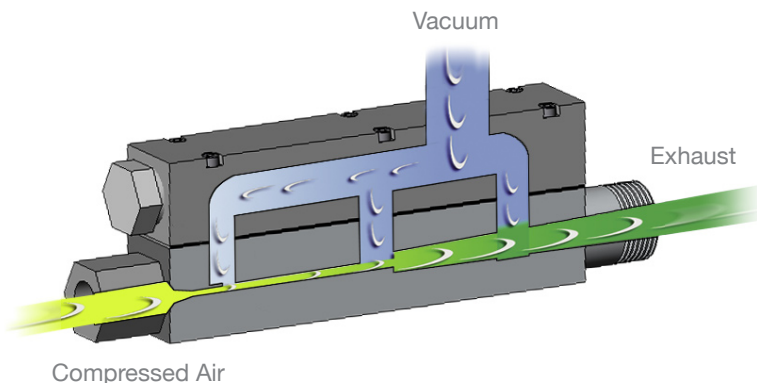
- High Initial Flow Rate
- Fast Evacuation
- Quiet Operation
- Low Maintenance
- Low Cost
- FREE Application Assistance



Shown to 3/4 scale

MFL Multi-Stage Design

- Used in “pick and place” applications.
- Used with vacuum cups for material handling where sealing is difficult and leakage is common due to uneven surfaces.
- High initial flow rate allows vacuum cups to quickly attach to the surface.
- Other applications include end-of-arm tooling and evacuation of chambers.



Principle of Operation

Compressed air flows through a small venturi nozzle to generate a high velocity. The air expands into the first chamber to generate vacuum. The combination of compressed air and vacuum flow from the first chamber flows through a second venturi where it produces additional vacuum flow. This combination flows through a third venturi to produce additional vacuum flow. This design is capable of vacuum levels up to 27.2”Hg and vacuum flow up to 19.5 scfm.

Flexible Mounting & Positioning

Simple Installation

- Elbow allows muffler to be mounted 90° to pump and rotated if necessary. Muffler can also be attached directly for straight through exhaust.
- Mounting plate for easy attachment to flat surface.
- Multiple units assembled together reduces space requirements.

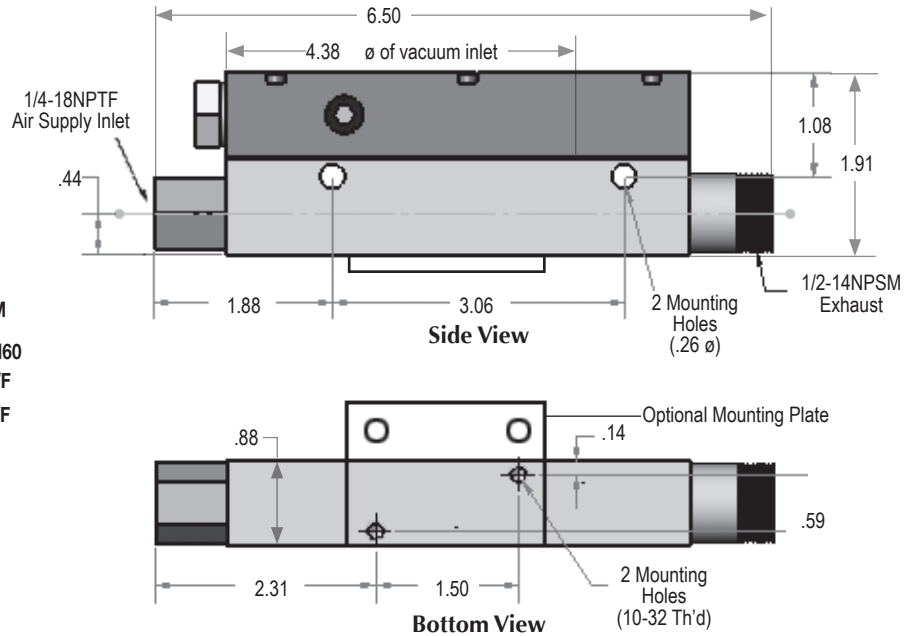
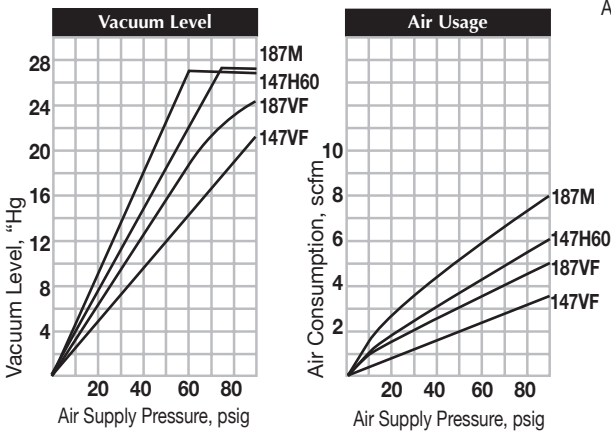


MFL Multi Stage Design Provides Four Different Capacities

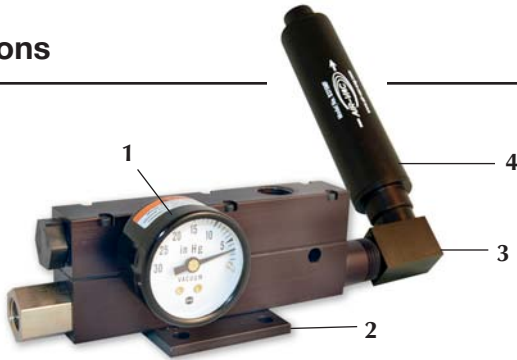
Two sizes are available. Each provides two vacuum levels of 27"Hg or 19"Hg, providing similar vacuum flow rates but different air consumption. The H60 version generates a vacuum level of 27"Hg. The VF version generates 19"Hg vacuum level but with a saving of 50-60% air usage.

Model Number	Specifications				Vacuum Flow Rate (scfm) @ Vacuum Levels, "Hg									Time in Seconds to Evacuate 1 Cubic Foot to Vacuum Levels, "Hg							
	Vac level "Hg	Vac flow scfm	Air used scfm	psi	"Hg	1.5"	3"	6"	9"	12"	15"	18"	21"	24"	6"	9"	12"	15"	18"	21"	24"
MFL147H60	27.2	13.3	4.3	60		9.2	6.1	2.8	1.5	1.2	.93	.72	.54	.3	1.9	5.4	9.6	15.4	23	34	55
MFL147VF	19.5	12.0	2.5	60		6.6	4.7	2.2	1.8	1.4	.85	.36	-	-	2.7	5.1	8.8	14.4	27	-	-
MFL187M	27.2	19.5	7.5	75		16.3	11.0	6.3	2.6	2.2	1.8	1.3	.73	.4	1.2	2.5	4.8	7.7	11.7	19	35
MFL187VF	18.5	15.2	3.9	75		10.5	7.0	3.6	2.8	2.0	1.2	-	-	-	1.7	3.5	5.4	9.1	30	-	-

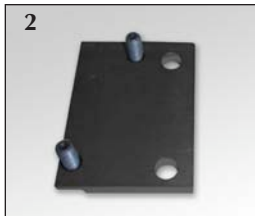
Vacuum Inlet - 3/8 NPTF for MF147; 1/2 NPTF for MF187
 Sound Level with muffler 71dBA
 Weight 11.5 oz.



Options



VG30 Vacuum Gauge
 • 1-1/2" diameter
 • 0-30"Hg scale



MFLMP Mounting Plate
 Includes screws.



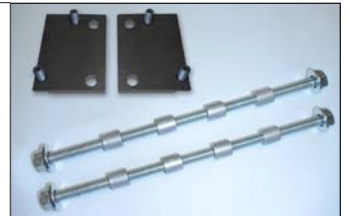
MFLMA Elbow Assembly with set screw for securing position of muffler.



MF Flow Through Muffler
 Quiets pump to 71dBA.
 • S375 MF (1 1/4" dia.). Used in single unit installations. MFLMP Mounting Plate required for mounting to flat surface.
 • S475 MF (7/8" dia.). Used in multiple mounting installations.



Multiple units assembled together reduces space.



MFLR5* Assembly Kit - Consists of two mounting rods, two mounting plates, nuts, washers and spacers for assembling multiple pumps. Contact Air-Vac to specify number of pumps required.
 *5 indicates number of pumps

The following part numbers should be used when ordering options with vacuum pump.
 - Vacuum Pump only: ie. MFL147H60
 - Vacuum Pump with Mounting Plate and Muffler: ie. add suffix MFL147H60B
 - Other options can be ordered separately

