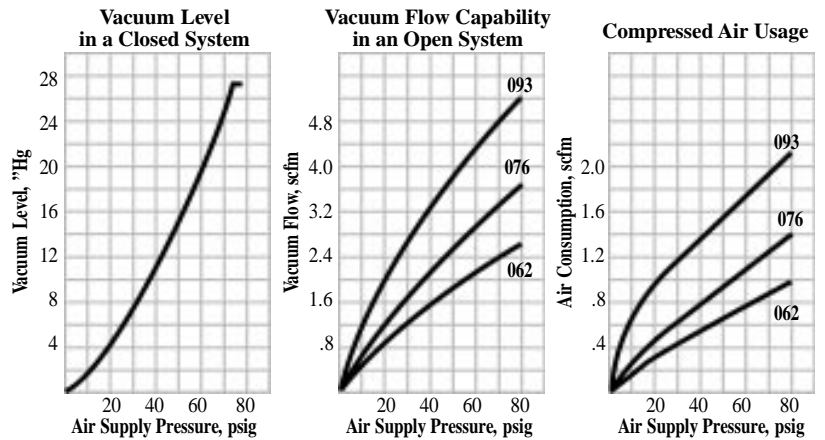


Multistage design with lightweight plastic housing and brass orifice efficiently generates high vacuum flow and high vacuum level. It offers excellent vacuum flow to air consumption ratios.

## "H" Version

Produces vacuum levels up to 27.7" Hg and vacuum flow rates up to 4.9 scfm.

Model Number	MFPM062H	MFPM076H	MFPM093H
Vacuum Level, "Hg	27.4	27.5	27.7
Vacuum Flow, scfm	2.4	3.3	4.9
Air Consumption, scfm	.82	1.2	1.9
Weight, oz.	2	2	2
Sound Level, dBA	69	70	71



### Time in Seconds to Evacuate a Volume of 1 Cubic Foot

"Hg	1.5	3	6	9	12	15	18	21	24
MFPM062H	1.2	3.5	11	28	55	85	125	180	350
MFPM076H	.8	2.3	7.3	26	48	72	98	129	197
MFPM093H	.3	.9	3.2	8.2	18	31	47	71	104

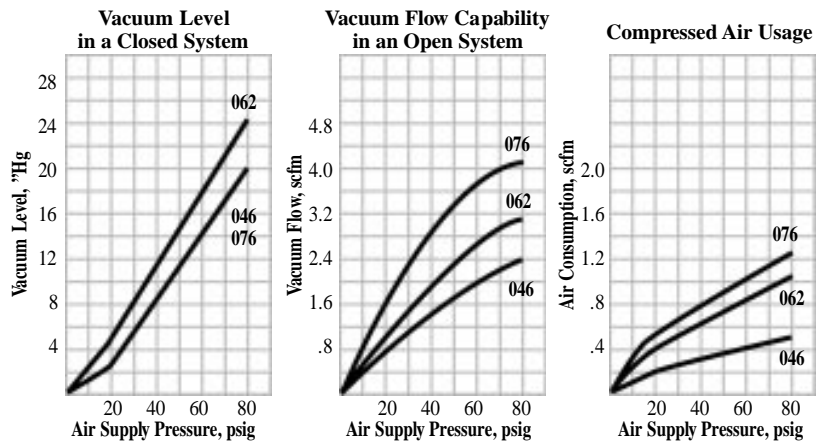
### Vacuum Flow Rate, scfm vs. Vacuum Level, "Hg

"Hg	0	1.5	3	6	9	12	15	18	21	24
MFPM062H	2.4	1.66	1.02	.61	.24	.22	.20	.17	.08	.04
MFPM076H	3.3	1.97	1.35	.75	.37	.33	.29	.22	.16	.07
MFPM093H	4.9	3.51	2.50	1.52	.63	.51	.44	.31	.25	.16

## "L" Version

Produces low vacuum levels and vacuum flow rates up to 4.1 scfm, *but with substantially lower levels of air consumption than the "H" versions.*

Model Number	MFPM046L	MFPM062L	MFPM076L
Vacuum Level, "Hg	18.8	21.0	18.8
Vacuum Flow, scfm	2.3	3.1	4.1
Air Consumption, scfm	.49	.98	1.18
Weight, oz.	2	2	2
Sound Level, dBA	67	69	69



### Time in Seconds to Evacuate a Volume of 1 Cubic Foot

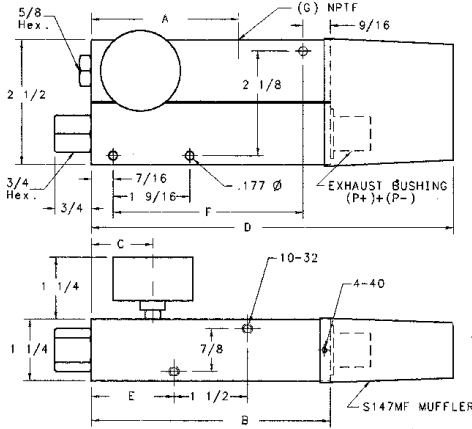
"Hg	1.5	3	6	9	12	15	18		
MFPM046L	1.3	4.4	18	38	64	101	166		
MFPM062L	.8	2.4	9.0	22	38	62	96		
MFPM076L	.5	1.5	6.0	14	25	42	75		

### Vacuum Flow Rate, scfm vs. Vacuum Level, "Hg

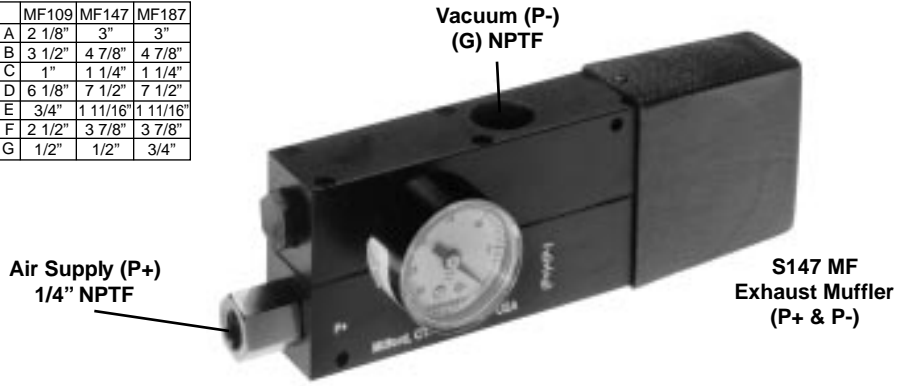
"Hg	0	1.5	3	6	9	12	15	18
MFPM046L	2.3	.97	.55	.30	.24	.18	.12	.03
MFPM062L	3.1	1.93	1.29	.52	.43	.33	.21	.11
MFPM076L	4.1	2.57	1.81	.81	.62	.47	.28	.09

• Sound levels recorded with S147AV muffler, see page 24.  
 • Materials of construction: glass filled nylon body, brass air supply fitting, and nylon reinforced Buna N Flapper valve.  
 • Replacement Flapper valves available - see page 24.

• Operating temperature (degrees): 0 to 200 F  
 • All data recorded at 70-75 psig air supply.



	MF109	MF147	MF187
A	2 1/8"	3"	3"
B	3 1/2"	4 7/8"	4 7/8"
C	1"	1 1/4"	1 1/4"
D	6 1/8"	7 1/2"	7 1/2"
E	3/4"	1 11/16"	1 11/16"
F	2 1/2"	3 7/8"	3 7/8"
G	1/2"	1/2"	3/4"

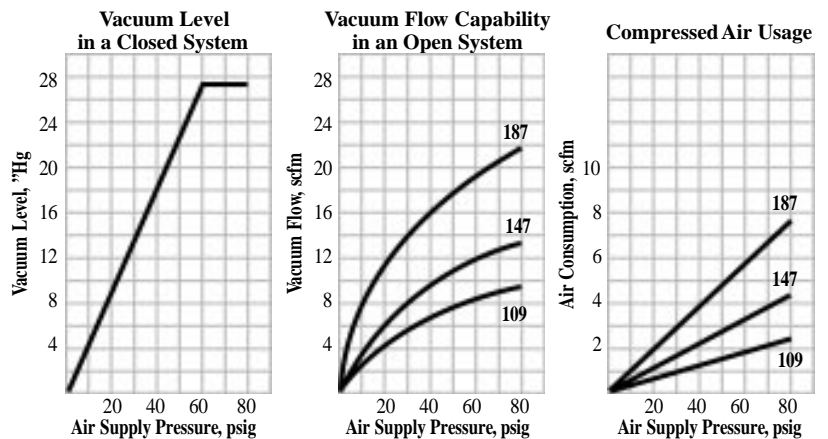


Multistage unit produces high vacuum flow and high vacuum levels. It offers excellent vacuum flow to air consumption ratios.

## “H” and “M” Version

Produces vacuum levels up to 27.6”Hg and vacuum flow rates up to 20.6 scfm. Model number includes vacuum gauge and muffler.

Model Number	MF109H60	MF147H60	MF187M
Vacuum Level, ”Hg	27.4	27.6	27.4
Vacuum Flow, scfm	9.4	13.4	20.6
Air Consumption, scfm	1.9	3.7	6.8
Weight, oz.	22	29	40
Sound Level, dBA	69	71	71
Operating Pressure, psig	60	60	75



### Time in Seconds to Evacuate a Volume of 1 Cubic Foot

”Hg	1.5	3	6	9	12	15	18	21	24
MF109H60	.2	.64	2.25	8.03	14.5	23.5	35.2	51	76
MF147H60	.1	.42	1.49	4.25	7.7	12.6	19	27	40
MF187M	.1	.2	.9	2.0	4.6	8.2	13.2	20.2	24

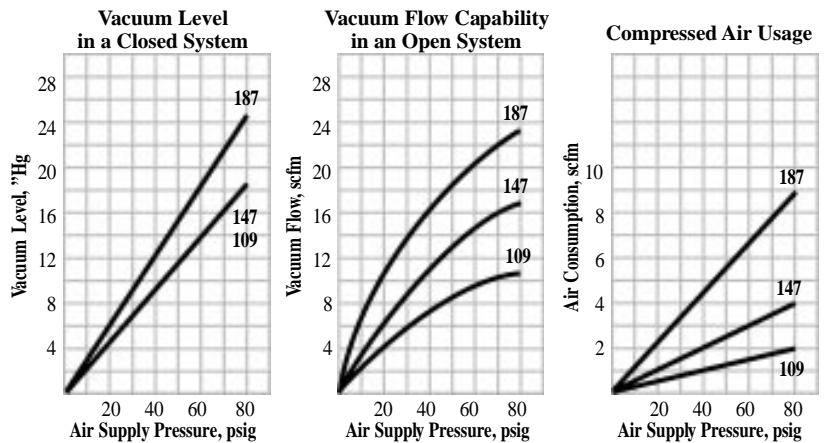
### Vacuum Flow Rate, scfm vs. Vacuum Level, ”Hg

”Hg	0	1.5	3	6	9	12	15	18	21	24
MF109H60	9.40	6.49	4.24	1.50	.96	.77	.66	.56	.32	.16
MF147H60	13.4	10.2	6.59	2.08	1.40	1.11	.77	.50	.38	.25
MF187M	20.6	17.7	10.9	7.1	2.5	2.1	1.8	1.3	.84	.32

## “VF” and “L” Version

Produce vacuum flow ratios to 22.8 scfm, and vacuum levels up to 25.1”Hg, *but at lower rates of air consumption than the “H” version.* Model number includes vacuum gauge and muffler.

Model Number	MF109VF	MF147VF	MF187L
Vacuum Level, ”Hg	17.7	17.7	22.8
Vacuum Flow, scfm	9.8	15.4	21.5
Air Consumption, scfm	1.9	3.7	8.2
Weight, oz.	22	29	40
Sound Level, dBA	69	71	71
Operating Pressure, psig	60	60	75



### Time in Seconds to Evacuate a Volume of 1 Cubic Foot

”Hg	1.5	3	6	9	12	15	18	21
MF109VF	.2	.63	2.02	4.50	8.62	16.6		
MF147VF	.1	.45	1.49	3.05	5.49	9.78		
MF187L	.1	.2	.8	1.9	4.0	6.7	10.8	16.6

### Vacuum Flow Rate, scfm vs. Vacuum Level, ”Hg

”Hg	0	1.5	3	6	9	12	15	18	21
MF109VF	9.8	7.18	4.59	2.44	1.78	1.16	.54		
MF147VF	15.4	10.5	6.98	3.63	2.90	2.11	1.11		
MF187L	21.5	17.8	12.2	8.1	3.4	2.8	2.2	1.6	1.0

• Sound levels recorded with mufflers, see page 24.  
 • Materials of construction: anodized aluminum body, brass fittings, and nylon reinforced Buna N Flapper valve.  
 \* Units are available without muffler and with 1/2” NPT threaded exhaust bushing.

• Operating temperature (degrees): 0 to 200 F  
 • Replacement Flapper valves available - see page 24.