

F&J SPECIALTY PRODUCTS, INC.

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The Nucleus of Quality Air Monitoring Programs

LOW VOLUME AIR SAMPLER F&J MODEL LV-22

NOTABLE FEATURES:

- Constant air flow regulator adjustable by user
- Powder coat painted aluminum enclosure with cooling fan
- Durable oil-less carbon vane pump designed for continuous use
- Internal intake and exhaust mufflers
- Rotometer, elapsed time meter and vacuum gauge
- 100– 120VAC, 50/60Hz; single phase



GENERAL DESCRIPTION:

Model LV-22 is a low volume air sampler consisting of a 1/4 HP oil-less, carbon vane vacuum pump with an air flow regulator for use where a nearly constant air flow is desirable. The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum pressure drop at all times by permitting it to run cooler; thus extending its service life. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The LV-22 is enclosed in a weather resistant aluminum environmental cabinet, Model WH-3. An optional mechanical volume totalizer is available for the LV-22 Air Sampler.

It should be noted that as pressure varies, the flow through an orifice with a constant pressure drop varies approximately as the square root of the ratio of the absolute pressure. Thus, if paper loading causes a pressure drop to one-half of the original value, the orifice is adjustable, allowing a flow rate adjustment from near-zero up to the pump's maximum capacity. Best long-term regulation is maintained at or below 2 cubic feet per minute (57 liters per minute).

The typical operating flow range is 1 to 3 CFM (10 – 100 LPM).

REV: 12 Sep. 2016

LV-22 Low Volume Air Sampler (100 – 120 VAC)

SPECIFICATIONS:

PUMP TYPE:

Oil-less, carbon vane 1/4 HP; 1725 RPM @ 60 Hz

MAXIMUM CAPACITY:

4 CFM (113 LPM) at 0" Hg Pressure drop.

ULTIMATE VACUUM:

25" (635 mm) Hg at sea level.

VACUUM GAUGE:

0" - 30" (0 to 762 mm) Hg.

POWER REQUIREMENTS:

100 – 120VAC; 50/60Hz at 6 amperes; single phase

FUSE PROTECTION:

6-1/4 Amperes

ELECTRICAL CORD:

All temperature, 3 wire, 16 gauge

THERMAL OVERLOAD PROTECTION:

Furnished as an integral part of the motor.

CONSTANT AIRFLOW REGULATOR:

Aluminum construction with silicon diaphragm; adjustable from 1 to 3 CFM (10- 100 LPM).

DIMENSIONS (w/Legs):

32 " L x 26" W x 48 1/4 " H. (81.3 × 65.0 × 122.6cm)

AVERAGE dB: 65.3

WEIGHT: 103 lbs. (46.8 Kgs.)

INSTALLATION CATEGORY: Pollution Degree 3

ENCLOSURE RATING: IPX3

AVAILABLE ROTOMETER SCALES:

<u>MODEL</u>	<u>RANGE</u>
R10100	10-100 LPM
R13	1-3 CFM

OPTIONS:

- Mechanical Volume Totalizer; Metric or English units
- DLM100-04 Digital Electronic Monitor

COMBINATION FILTER HOLDER:

Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick disconnect function

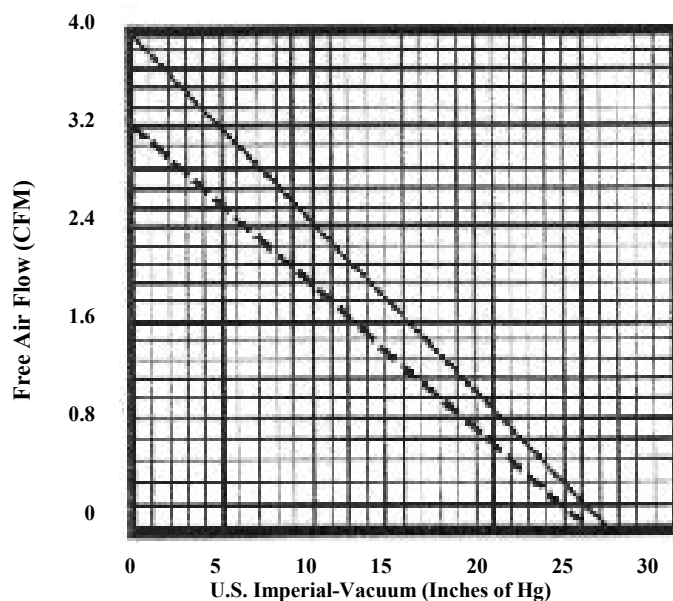
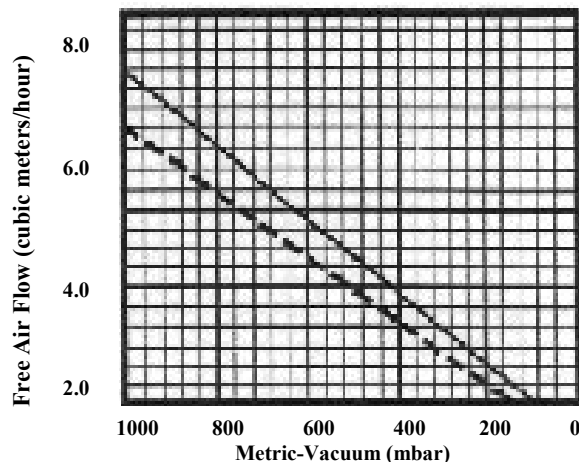
STANDARD COMBINATION FILTER HOLDERS:

<u>FILTER HOLDER MODEL</u>	<u>CHARCOAL CARTRIDGE DIMENSIONS</u>	<u>PARTICULATE PAPER DIAMETER</u>
FJ-05P	F&J MODEL B	2" or 50 mm
FJ-21P	F&J MODEL C	2" or 50 mm
FJ-35P	F&J MODEL B	47 mm
FJ-46P	F&J MODEL C	47 mm
FJ-51P	F&J MODEL M	2" or 50 mm
FJ-53P	F&J MODEL M	47 mm

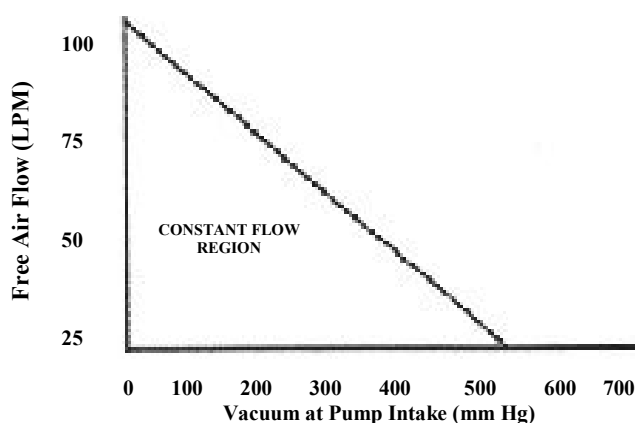
PUMP CURVE

Top line on curve is for 60-cycle performance

Bottom line on curve is for 50-cycle performance



CONSTANT AIR FLOW REGULATOR CURVE TYPICAL PUMP OPERATING FLOW RANGE



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