

F&J SPECIALTY PRODUCTS, INC.  
PO Box 2888  
Ocala, FL 34478-2888  
Phone: 352-680-1177 Fax: 352-680-1454  
Email: fandj@atlantic.net

**LV-1 Standard Low Volume Air Sampler**

110 V/60 Hz portable rotometer style air sampler featuring flow control, ~ 4 CFM capacity and a 1/4 HP OCV motor.

LV-1



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**LV-1 LOW VOLUME AIR SAMPLER**  
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Notable Features

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- 1/4 HP oilless carbon vane pump.
  - No lubrication required.
  - Mounted on a base with four rubber feet.
  - A plastic combination filter holder is supplied.
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Description

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The Model LV-1 is a low volume air sampler consisting of an oilless, carbon vane vacuum pump with a flow meter, a vacuum gauge, a constant 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 by-pass valve into the pump. This system allows the pump to work at a minimum pressure drop at all times, permitting it to run cooler and thus extending its lifetime. The oilless pump requires no lubrication to maintain optimal efficiency during its service life.

The pump is mounted on a base with four rubber feet. A handle is provided on the chassis to facilitate its transportation. A plastic combination filter holder is a standard accessory included in the price.

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## Specifications

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Pump Type	Oilless, carbon vane 1/4 HP; 1725 RPM.
Free Air Capacity	Maximum 4 CFM (113 LPM) at 0" of Hg pressure drop.
Ultimate Vacuum	25" of Hg (635 mm Hg) at sea level.
Vacuum Gauge	0" - 30" (0.7 - 762 mm) of Hg.
On-Off Switch	Chassis mounted.
Electrical Cord	All temperature, 3 wire, 16 gauge.
Combination Filter Holder	Durable plastic combination filter holders for either 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.
Constant Air Flow Regulator	Aluminum construction with silicone diaphragm; adjustable from 0.5 to 3.5 CFM (10 - 100 LPM).
Power	110 VAC; 60 Hz; 5.5-6.2 amperes.
Thermal Overload Protection	Furnished as an integral part of the motor.
Handle	Black painted steel.
Dimensions	16" L x 7 1/2" W x 13 1/4" H. (40.6 cm L x 19.1 cm W x 33.6 cm H).
Weight	29 pounds (13 kgs.).

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## Available Rotometer Scales

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Model	Range	Units
R10100	10 - 100	LPM
R3535	0.35 - 3.5	CFM

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## Standard Combination Filter Holders Available

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Filter Holder Model	Charcoal Cartridge Dimensions	Particulate Paper Diameter
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FJ-05P	F&J Model B	2" or 50 mm
FJ-21P	2 1/4" D x 1" H	2" or 50 mm
FJ-35P	F&J Model B	47 mm
FJ-46P	2 1/4" D x 1" H	47 mm
FJ-51P	Scott-type	2" or 50 mm
FJ-53P	Scott-type	47 mm

## Optional Equipment

Elapsed Time Indicator: 9999.9 hours or minutes.

Oil lubricated vacuum pump.

## Spare Parts For LV-1

### 0522 SERIES

Product Code	Description	
1A318	Vacuum Gauge	
614AMP	Fuse 6 1/4 amp	
AC174B	Aluminum Handle (1/4 HP)	
AE274	Plastic Muffler Jars (LVP-19)	
AF109C	Carbon Vane (4 per set, 1/4 HP)	
B344A	Felt Filter (4 per set, 1/4 HP)	
B62A	Cover Gasket (2 per set, 1/4 HP)	
FJ-21P	Open Face / 2.0" Particulate/Model C; 3/8 QD	
FJ46P	Open Face/47 mm Particulate/Model C; 3/8 QD	
FJ-05P	Open Face/2.0" Particulate/Model B; 3/8 QD	
FJ-35P	Open Face/47 mm Particulate/ Model B; 3/8 QD	
K247	Service Repair Kit (1/4 HP)	
CAR-14 (LVP-16)	Constant Air Flow Regulator	1 - 6 7 - 15 16 - 24 >24
LV2214 (LVP-18)	1/4 HP Carbon Vane With Plastic Jar	

LVP24	On/Off Toggle Switch
LVP30	Switch Cover Motor Plate
LVP53H	16/3 Heavy Duty Cable; Blue
QD38F	3/8" QD Coupling (Female)
QD38M	3/8" QD coupling (Male)
R10100	Flow Meter 10 - 100 LPM
R3535	Flow Meter .35 - 3.5 CFM

Note: The 0522 series motors have been discontinued. The 0523 series motor is recommended as a replacement.

#### 0523 SERIES

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Product Code	Description
1A318	Vacuum Gauge (Hg)
052314	Carbon Vane pump (1/4 HP) - Quiet motor 0523
614AMP	Fuse 6 1/4 Amp
AC174B	Aluminum Handle (1/4 HP)
AF353	Muffler (1/4 HP) - Quiet pump
AH850A	Vane (4 per set; 1/4 HP) - Quiet Pump
AD473	O-Ring (1/4 HP) - Quiet Pump
AK501	End Plate (1/4 HP) - Quiet Pump
AK502	Shroud (1/4 HP) - Quiet Pump
AK505	Body (1/4 HP) - Quiet Pump
AK510	Endcap 2 per set (1/4 HP) - Quiet Pump
AK519	Muffler Box (1/4 HP) - Quiet Pump
AK521	Gasket (1/4 HP) - Quiet Pump
AK523	Bolt Gasket 5 per set (1/4 HP) - Quiet Pump
AK524	Felt (1/4 HP) - Quiet Pump
BA249	Elbow
K478	Service Kit (1/4 HP) - Quiet Pump
LVP16	Constant Air Flow Regulator

LVP24	On/Off Toggle Switch
LVP26	Fuse Holder
LVP31C	Switch Cover Motor Plate
LVP53H	16/3 Heavy Duty Cable; Blue
QD38F	3/8"QD Coupling (Female)
QD38M	3/8 QD Coupling (Male)
R10100	Flow Meter 10 - 100 LPM
TYTB56	Tygon Tubing 5/16"