

F&J SPECIALTY PRODUCTS, INC.

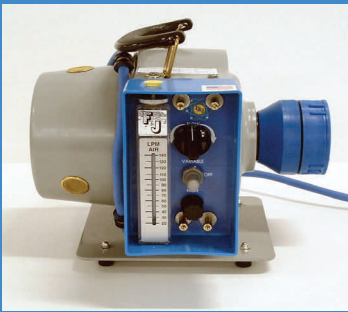
The Nucleus of Quality Air Monitoring Programs

PORTABLE ANALOG HIGH VOLUME AIR SAMPLERS

BY

F&J SPECIALTY PRODUCTS, INC.

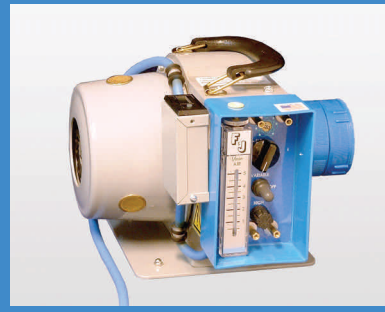
100 — 120 VAC



HV-1



HV-1S



HV-1RT



HV-1BC



HV1SBC



**“Comet Style”
Thermally Protected Motor
T8400M**



H8400B



**“Bug Style”
Thermally Protected Motor
T9400**

Rev: 29 March 2018

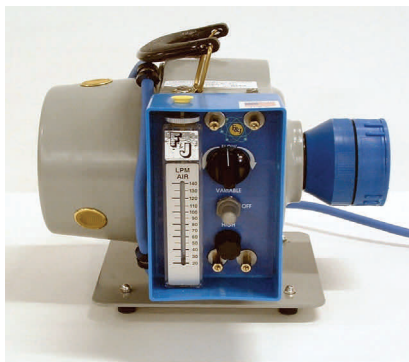
PORTABLE ANALOG HIGH VOLUME AIR SAMPLERS

BY F&J SPECIALTY PRODUCTS. INC.

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HIGH VOLUME ANALOG AIR SAMPLER

F&J MODEL HV-1



NOTABLE FEATURES:

- Single Rotometer
- Multiple Reinforcement for the Electrical Cord
- Stable Base Plate
- Removable Controller Module to Facilitate Maintenance
- Multiple Rotometer Scales are Available
- Flow Adjustment via Motor Speed Control
- Dual Ball bearing Motor with Independent Cooling
- 100 – 120VAC, 50/60Hz; single phase

SPECIFICATIONS

Pump Type:

Two-stage, dual ball-bearing, bypass type with an independent cooling system for the motor that provides thermal overload protection.

Maximum Capacity:

94 CFM at 29.92" Hg and 68°F (Free Air Flow)

Temperature Operating Range:

18 to 122°F (-7 to 50°C)

Ultimate Vacuum:

80" H₂O at standard temperature, pressure and zero flow restriction

Power Requirements:

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

Fuse Protection: 8 amperes, slow blow fuse

Handle: Durable plastic

Base Plate:

Weight: 1 lb. (0.5 kg)

Dimensions: 7"L × 7"W × 1/8" Thick (17,8 × 17,8 × 0,3 cm)

Noise Level: Average dB 73.5 @ 1 meter

Weight: Approximately 11 lbs. (5 kg)

Flow Meter:

Various flow ranges are available in CFM and LPM.

Flow Calibration:

An adjustable needle valve at the top of the flow meter is secured by a locking nut.

Standard Combination Filter Holders Available:

FILTER HOLDER MODEL	CHARCOAL CARTRIDGE DIMENSIONS	PARTICULATE PAPER DIAMETER
FJ-19P	F&J Model C	2" or 50 mm
FJ-27P	F&J Model B	2" or 50 mm
FJ-34P	F&J Model C	47 mm
FJ-39P	F&J Model B	47 mm
FJ-52P	F&J Model M	2" or 50 mm
FJ-54P	F&J Model M	47 mm

HIGH VOLUME ANALOG AIR SAMPLER

F&J MODEL HV-1S



NOTABLE FEATURES:

- Single Rotometer
- Multiple Reinforcement for the Electrical Cord
- Stable Base Plate
- Removable Controller Module to Facilitate Maintenance
- Multiple Rotometer Scales are Available
- Flow Adjustment via Motor Speed Control
- Dual Ball bearing Motor with Independent Cooling
- 100 – 120VAC, 50/60Hz; single phase

SPECIFICATIONS

Pump Type:

Two-stage, dual ball-bearing, bypass type with an independent cooling system for the motor that provides thermal overload protection.

Maximum Capacity:

94 CFM at 29.92" Hg and 68°F (Free Air Flow)

Temperature Operating Range:

18 to 122°F (-7 to 50°C)

Ultimate Vacuum:

80" H₂O at standard temperature, pressure and zero flow restriction

Power Requirements:

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

Fuse Protection: 8 amperes, slow blow fuse

Handle: Durable plastic

Base Plate:

Weight: 1 lb. (0.5 kg)

Dimensions: 7"L × 7"W × 1/8" Thick (17.8 × 17.8 × 0.3 cm)

Dimensions: 9 1/4"L × 8 1/4"W × 10"H
(23.5 × 21.0 × 25.4 cm)

Weight: Approximately 11 lbs. (5 kg)

Flow Meter:

Various flow ranges are available in CFM and LPM.

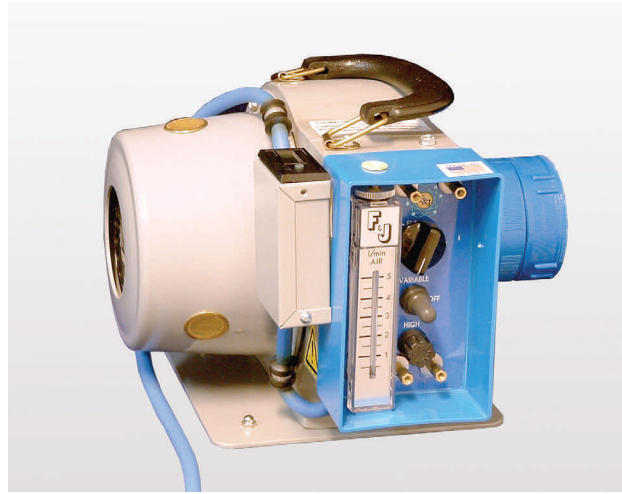
Flow Calibration:

An adjustable needle valve at the top of the flow meter is secured by a locking nut.

Typical Maximum Flow Rates for 4.0" Diameter Filter Paper:

Filter Paper	Flow Rates	
	CFM	LPM
Model		
FP40	18	509
FP40M	27	764
521140	21	594
AE40	21	594
213340	32	906
CP40	18	509
CP40H	8	226
Whatman 41	21	594

HIGH VOLUME ANALOG AIR SAMPLER F&J MODEL HV-1RT



NOTABLE FEATURES:

- Single Rotometer
- Multiple Reinforcement for the Electrical Cord
- Stable Base Plate
- Removable Controller Module to Facilitate Maintenance
- Multiple Rotometer Scales are Available
- Flow Adjustment via Motor Speed Control
- Dual Ball bearing Motor with Independent Cooling
- Resettable LCD Elapsed Time Meter
- 100 – 120VAC, 50/60Hz; single phase

SPECIFICATIONS

PUMP TYPE:

Two-stage, dual bearing, bypass type with independent cooling system for the motor that provides thermal overload protection.

MAXIMUM CAPACITY:

94 CFM at 29.92" Hg and 68°F (Free Air Flow)

ULTIMATE VACUUM:

80" H₂O at standard temperature, pressure and zero flow restriction

TEMPERATURE OPERATING RANGE:

18° to 122°F (-7 to 50°C)

POWER REQUIREMENTS:

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

FUSE PROTECTION: 6 ¼ amperes, slow blow fuse

HANDLE: Durable plastic

BASE PLATE:

Weight: 1 lb. (0,5 kg)

Dimensions: 7" L × 7" W × 1/8" Thick
(17,8 × 17,8 × 0,3 cm)

DIMENSIONS:

9 ¼" L × 8 ¼" W × 10" H (23,5 × 21,0 × 25,4 cm)

WEIGHT: Approximately 11 lbs. (5 kg)

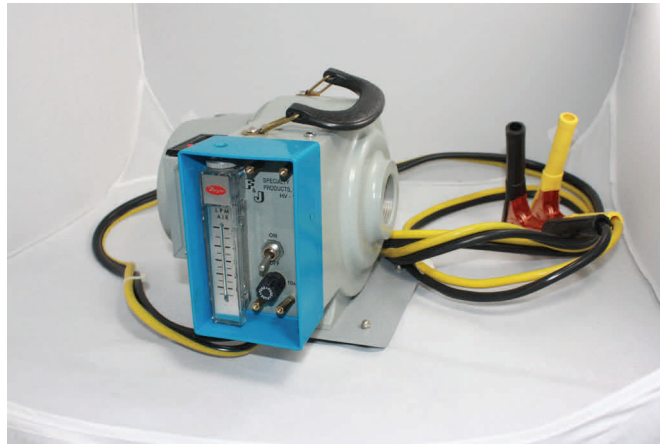
FLOW METER:

Various flow ranges are available in CFM and LPM.

FLOW CALIBRATION:

A locking nut secures an adjustable needle valve at the top of the flowmeter.

HIGH VOLUME ANALOG AIR SAMPLER F&J MODEL HV-1BC



NOTABLE FEATURES:

- Heavy duty 24 Volt DC Motor
- Multiple Reinforcement for the Electrical Cord
- Stable Base Plate
- Removable Controller Module to Facilitate Maintenance
- Dual Ball bearing Motor with Independent Cooling
- Equipped with Heavy Duty Battery Cables and Clips
- 12/24 VDC

SPECIFICATIONS

Pump Type:

Two stage, dual bearing bypass type vacuum blower motor

Ultimate Vacuum:

43.6" H₂O at STP and zero flow restriction

Power:

12/24 VDC at 15 amps

Fuse Protection:

15 amp slow blow fuse

Handle:

Durable Plastic

Battery Cables:

6 feet, 8 gauge

Thermal Overload Protection:

Independent cooling is provided for the motor, which maintains a safe operating temperature, therefore eliminating the need for an overload protection device.

Base Plate:

Weight: 1 lb. (0,5 kg)

Dimensions: 7" square (17,8 cm²)

Dimensions:

9 ¼"L × 8 ¼"W × 9"H
(23,5 × 21,0 × 22,0 cm)

Weight:

14 lbs. (6,4 kg)

Flowmeter:

Various flow ranges are available in CFM and LPM units.

Flow Calibration:

Adjustable needle valve at top of flowmeter is secured by locking washer.

HIGH VOLUME ANALOG AIR SAMPLER F&J MODEL HV1SBC



GENERAL DESCRIPTION:

The HV1SBC Air Sampler consists of a high volume vacuum pump with (5) five foot long battery cables, motor cooling fan in the motor housing and flow measurement and flow calibration capability.

The pump is mounted on a rigid base having non-skid rubber shoes. A rugged plastic controller module unit includes a protective guard for the flow meter and the controls.

This controller module facilitates maintenance of pump components. The HV1SBC is designed for remote sampling applications utilizing 4" (102 mm) diameter filter paper and a 12Volt D.C. or 24Volt D.C. power source.

The HV1SBC Air Sampler is supplied with a combination filter holder as a standard feature.

SPECIFICATIONS

Pump Type: Two stage, dual bearing, bypass type
Maximum Capacity: 66.4 cubic feet per minute (cfm) at 29.92" Hg and 68°F at 224VDC
Ultimate Vacuum: 43.6" H₂O at standard temperature and pressure at 24 VDC
Filter Holder: 4" (102 mm) Diameter
Flow Meter: Various flow ranges are available in CFM or LPM units
Flow Calibration: Adjustable needle valve at top of flow meter is secured by locking nut
Power: 12/24 VDC at 15 amps
Battery Cables: 5 feet; 8 gauge

Fuse Protection: 15 – 20 amp slow blow fuse

Dimensions: 9 ¼"L × 8 ¼"W × 10"H

Weight: 14lbs

Thermal Overboard Protection:

Independent cooling is provided for the motor, which maintains a safe operating temperature, therefore eliminating the need for an overload protection device.

Handle: Durable lightweight plastic

Base Plate:

a) Weight: 1 lb.

b) Dimension: 7" square; other dimensions available upon request.

HIGH VOLUME ANALOG AIR SAMPLER w/”COMET STYLE” PLASTIC HOUSING F&J MODEL T8400M



“Thermally Protected Motor”

NOTABLE FEATURES:

- Very durable polypropylene plastic housing
- Lightweight <9 lbs. (4,1 kg)
- Variable speed control up to full flow
- Thermally Protected Motor
- Powerful 1.4 H.P. dual ball bearing motor
- 100-120VAC, 50/60Hz; single phase
- Flow measurement gauge options
Single: 10 – 70 CFM (280 – 1980 LPM)
Dual: 10 – 70 CFM (280 – 1980 LPM)
Dual: .5 – 2 CMM (500 – 2000 LPM)
- Circuit Breaker Protected
- Flow rate monitoring gauge
- Optional – Resettable elapsed time meter

SPECIFICATIONS

Pump Type:

Two stage, thermally protected dual ball bearing vacuum blower motor; 1.4 H.P.

Maximum Capacity:

90 CFM (2500 LPM) at 29.92” HG at 68°F at zero load

Power Requirements:

100-120VAC; 50/60Hz @ 8.8 amperes; single phase

Circuit Breaker Protection:

10 amperes

Electrical Cord:

All temperature, 3 wire, 16 gauge

Thermal Overload Protection:

Furnished as an integral part of the motor

Flow Control

Variable Speed up to full flow

Exterior Housing:

Heavy duty polypropylene

Handle:

Durable plastic/metal

Dimensions:

9 ¾”L × 9 ½”W × 10 3/8”H
(23,8 L × 24,1 W × 26,4 cm H)

Average dB: 87.3

Weight: 8 lbs. 10 oz. (4,1 kg)

Installation Category: Pollution Degree 2

Operating Temperature:

40° - 104°F (4° - 40°C)

Storage Temperature:

32° - 122°F (0° - 50°C)

HIGH VOLUME ANALOG AIR SAMPLER F&J MODEL H8400B



NOTABLE FEATURES:

- Very durable polypropylene plastic housing
- Lightweight <9 lbs. (4,3 kg)
- 24 Volt DC Motor
- Optional flow measurement gage (10-70 CFM; 280 – 1980 LPM)
- Standard 4-inch (102 mm) diameter filter holder; also accommodates 8"x10" (20,3cm x 25,4cm) filter holder w/adapter)
- Optional – Resettable elapsed time meter

SPECIFICATIONS

Pump Type:

Two stage, through flow, vacuum blower motor.

Power Requirements: 24VDC

Circuit Breaker: 15 amp (able to reset)

Battery Cable: 12' (3,6 m); 8 gauge

Cable Connector: Bipolar Quick Disconnect

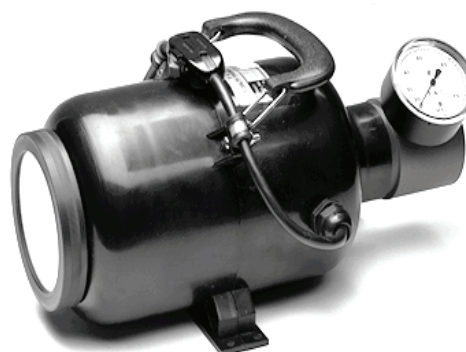
Exterior Housing: Heavy duty polypropylene

Dimensions: 9 ¾"L × 9 ½"W × 10 3/8"H
(23,8L × 24,1W × 26,4 cm H)

Weight: 8 lbs. 10 oz. (4,3 kg.)

Handle: Durable plastic/metal

HIGH VOLUME AIR SAMPLER "BUG STYLE" PLASTIC HOUSING F&J MODELS H9400



Illustrated with optional flow monitoring gauge

NOTABLE FEATURES:

- Very durable polypropylene plastic housing
- Lightweight <7 lbs. (3,2 kg)
- Cable mounted on-off switch
- Affordable for air sampling in highly contaminated areas where disposable use is required
- Powerful 1.4 H.P. dual ball bearing motor
- 100-120VAC, 50/60Hz; single phase

SPECIFICATIONS

Pump Type:

Two stage, through flow, thermally protected 1.4 H.P., dual ball bearing vacuum blower.

Maximum Capacity:

91 CFM under zero load at STP and 120 VAC (230 VAC) line power

Ultimate Vacuum: 90" of H₂O at STP and 120V (230V)

Power Requirements:

100-120VAC; 50/60Hz; single phase

Power Cord: 7'; 18 gauge, 3 conductor

Exterior Housing: Heavy duty polypropylene plastic

Flow Measurement:

Optional 10-70 CFM dial on pressure gauge

Flow Calibration: Factory established

Dimensions: 11"L × 8 ½"W × 6 ½"H
(27,9 L × 21,6 W × 16,5 cm H)

Weight:

7 lbs. 15 oz. (3,2 kg) without filter holder

Handle: Durable plastic

Filter Holder: A durable plastic 4-inch (102 mm) diameter holder is standard.

Note: This unit should always be used in a fuse-protected electrical outlet.

HIGH VOLUME AIR SAMPLER "BUG STYLE" PLASTIC HOUSING F&J MODELS T9400



Illustrated with optional flow monitoring gauge

"Thermally Protected Motor"

NOTABLE FEATURES:

- Thermally Protected Motor
- Very durable polypropylene plastic housing
- Lightweight < 7 lbs. (3.2 kg)
- Chassis mounted on-off switch
- Affordable for air sampling in highly contaminated areas where disposable use is required
- Powerful 1.4 H.P. dual ball bearing motor
- Optional flow monitoring system
- 100-120VAC, 50/60Hz; single phase

SPECIFICATIONS

Pump Type:

Two stage, through flow, thermally protected 1.4 H.P., dual ball bearing vacuum blower.

Maximum Capacity:

91 CFM under zero load at STP and 120 VAC (230 VAC) line power

Ultimate Vacuum: 90" of H₂O at STP and 120V (230V)

Power Requirements:

100-120VAC; 50/60Hz; single phase

Power Cord: 7'; 18 gauge, 3 conductor

Exterior Housing: Heavy duty polypropylene plastic

Flow Measurement:

Optional 10-70 CFM dial on pressure gauge

Flow Calibration: Factory established

Dimensions: 11"L × 8 ½"W × 6 ½"H
(27,9 L × 21,6 W × 16,5 cm H)

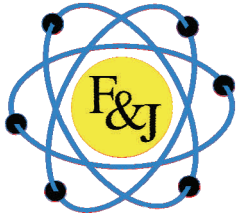
Weight:

6 lbs. 15 oz. (3,2 kg) without filter holder

Handle: Durable plastic

Filter Holder: A durable plastic 4-inch (102 mm) diameter holder is standard.

Note: This unit should always be used in a fuse-protected electrical outlet.



PRODUCT PROFILE

Air Sampling Systems

- High Volume Air Samplers
 - Portable Grab Samplers
 - Environmental Systems
 - Enzyme Dust Samplers
 - PM10 Systems
- Continuous Air Samplers
 - Environmental Systems
 - Portable
 - Fixed Station
- Personal Air Samplers
- Emergency Response DC Powered Air Sampling Systems

Filter Paper

- Glass Fiber
- Cellulose
- Membrane
- Quartz

Filter Holders

- Open face
- In-Line
- PAS Filter Holders
- Materials
 - Plastic
 - Aluminum
 - Stainless Steel

Radon Detection Devices

- 2-Day Passive Charcoal Canisters
- 7-Day Passive Charcoal Canisters
- Continuous Radon Monitors

Tritium Detection Systems

- Portable and Fixed Station Collection Systems utilizing Silica Gel or Molecular Sieve Absorbents
- Continuous Tritium Monitors

New Products

- Global Air Sampling Systems
- Digital Flowmeter Air Samplers
- C-14 Collection Systems
- ELITE DIGITAL LIGHT (EDL) Air Samplers
- Isokinetic Air Sampling Systems
- MEGA High Volume Air Samplers
- ULTRA High Volume (CTBTO) Air Samplers

Radioiodine Collection Cartridges

- TEDA Impregnated Charcoal
- Silver Zeolite
- Custom Cartridges
- Bulk Silver Zeolite

Air Flow Calibrators

- World Calibrator Series
- Compact Digital V.2 Series
- Mini-Calibrator