

**F&J SPECIALTY PRODUCTS, INC.**

*The Nucleus of Quality Air Monitoring Programs*

# HIGH FLOW EMERGENCY RESPONSE AIR SAMPLERS

**CENTRIFUGAL BLOWER VACUUM SYSTEM MODELS  
OPERABLE FROM LINE POWER AND 12VDC POWER**

## DFCB Series



CE



CE

Rev: 09 May 2024

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# MAXIMUM FLOW RATE FOR DFCB SERIES

## Small Diameter Filters

### Typical Maximum Flow Rate

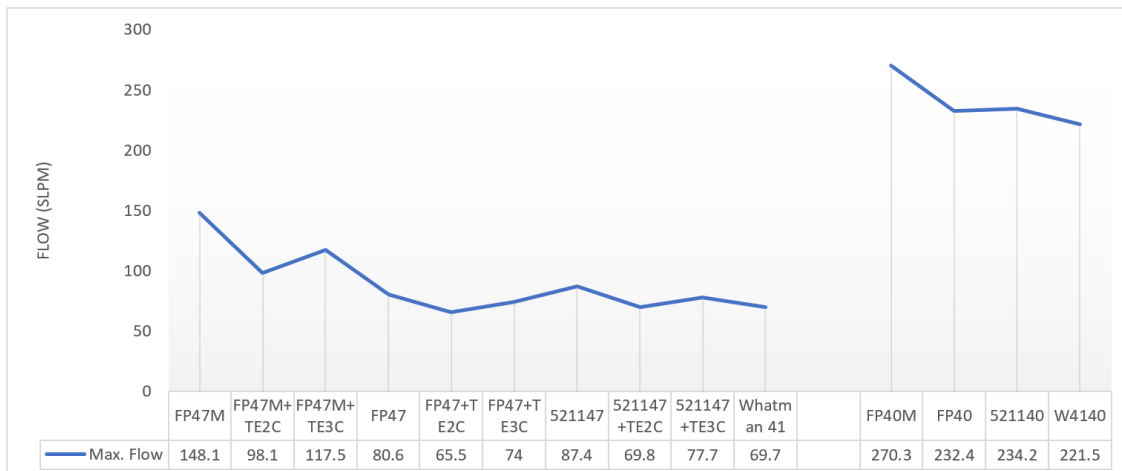
Filter Media	(SLPM)	(SCFM)	(SCMH)
FP47M	148.1	5.2	8.8
FP47M+TE2C	98.1	3.4	5.7
FP47M+TE3C	117.5	4.1	6.9
FP47	80.6	2.8	4.7
FP47+TE2C	65.5	2.3	3.9
FP47+TE3C	74.0	2.6	4.4
521147	87.4	3.0	5.0
521147+TE2C	69.8	2.4	4.0
521147+TE3C	77.7	2.7	4.5

## 4 inch (102mm) Particulate Filter Media

### Typical Maximum Flow Rate

Filter Media	(SLPM)	(SCFM)	(SCMH)
FP40M	270.3	9.5	16.1
FP4.0	232.4	8.2	13.9
521140	234.2	8.2	13.9
W4140	221.5	7.8	13.2

## DFCB SERIES MAXIMUM FLOW DATA



# LOW VOLUME AIR SAMPLING SYSTEM DIGITAL FLOW METER TECHNOLOGY F&J Model DFCB-100L-12Li

## NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - Internal: 12VDC; 12 Ah LiFePO<sub>4</sub> Battery
- Lightweight — 9 lbs. (4.1 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off by time or volume
- Brushless Motor
- High Speed Centrifugal Blower
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Unit shown with optional  
filter holder FJ-34**

## GENERAL DESCRIPTION:

F&J Model DFCB-100L-12Li is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) line power, or (2) the internal 12 Ah LiFePO<sub>4</sub> Battery.

The DFCB-100L-12Li is well suited for standard low volume air sampling and emergency response sampling activities where users have line power available.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned metal enclosure. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 15 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download the sampling data as a .csv file for easy data analysis.

# DFCB-100L-12Li Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower  
**Motor:** High Speed Brushless (12-15VDC) (60,000 rpm)

**Maximum Flowrate:** 100 LPM typical  
 with 521147 HEPA glass fiber media

**Power Source:**  
 External – Line Power; 100VAC to 240VAC  
 Internal: 12 Ah; 12VDC LiFePO<sub>4</sub> Battery

**Current Draw:** 8.0 A maximum on 12VDC  
 1.0 A on line power

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
 1.80—12 U.N.M (Filter Holder)

**Handles:** Durable metal/plastic

**Weight:** 9 lbs. (4.1 kg)

**Dimensions:** 10.3” L × 10.5” W × 8.5” H  
 (26 × 27 × 22 cm)  
 Height with handle extended ~11.4”

**Average Db:** 70 @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
 (-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** HHH:MM up to 168 hours

**Flow Control:**  
 Adjustable from keypad between 15-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

## Factory Settable Reference T and P

Classical STP	0°C, 1 ATM (760 mmHg)
Normal T and P	20°C, 1 ATM (760 mmHg)
Modified Normal T and P	70°F, 1 ATM (760 mmHg)
Standard Ambient T and P	25°C, 1 ATM (760 mmHg)

## OPTIONS:

- Bluetooth Dongle for PC Device (P/N: BTDG)

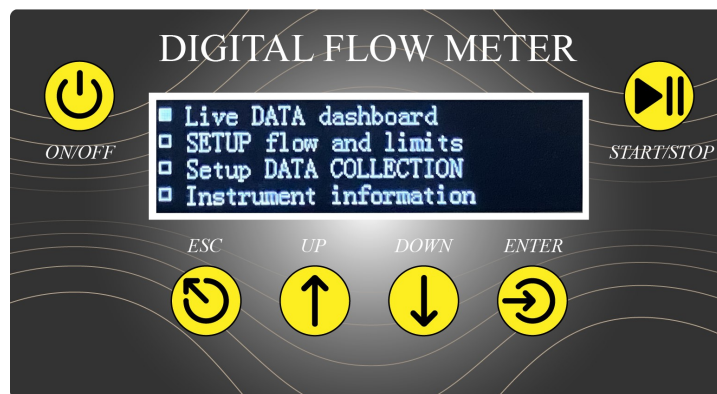
## Standard Aluminum Combination Plastic Filter Holders Available:

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

## Available Engineering Units for Flow and Volume:

SLPM / SLP  
 SCFM / SCF  
 SCMH / SCM

## Digital Flow Meter Keypad/Display



# LOW VOLUME AIR SAMPLING SYSTEM DIGITAL FLOW METER TECHNOLOGY F&J Model DFCB-100L-AC

## NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - External Auxiliary DC Power Input
- Lightweight — 6 lbs. (2.7 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Brushless Motor
- High Speed Centrifugal Blower
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Unit shown with optional  
filter holder FJ-34**

## GENERAL DESCRIPTION:

F&J Model DFCB-100L-AC is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) line power, or (2) the auxiliary DC connector (12 – 15 VDC)

The DFCB-100L-AC is well suited for standard low volume air sampling and emergency response sampling activities where users have line power available.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned metal enclosure. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 15 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download the sampling data as a .csv file for easy data analysis.

# DFCB-100L-AC / DC Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower

**Motor:** Brushless 12VDC

**Maximum Flowrate:** 100 LPM typical  
with 521147 HEPA glass fiber media

**Power Source:**  
External – Line Power; 100VAC to 240VAC  
External Auxiliary DC Power Input (12—15VDC)

**Current Draw:** 8.0 A maximum on 12VDC  
1.0 A on line power

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Handles:** Durable metal/plastic

**Weight:** 6 lbs. (2.7 kg)

**Dimensions:** 10.3” L × 10.5” W × 8.5” H  
(26 × 27 × 22 cm)  
Height with handle extended ~11.4”

**Average Db:** @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
(-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** HHH:MM up to 168 hours

**Flow Control:**  
Adjustable from keypad between 15-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

## Factory Settable Reference T and P

Classical STP	0°C, 1 ATM (760 mmHg)
Normal T and P	20°C, 1 ATM (760 mmHg)
Modified Normal T and P	70°F, 1 ATM (760 mmHg)
Standard Ambient T and P	25°C, 1 ATM (760 mmHg)

## OPTIONS:

- Bluetooth Dongle for PC Device (P/N: BTDG)

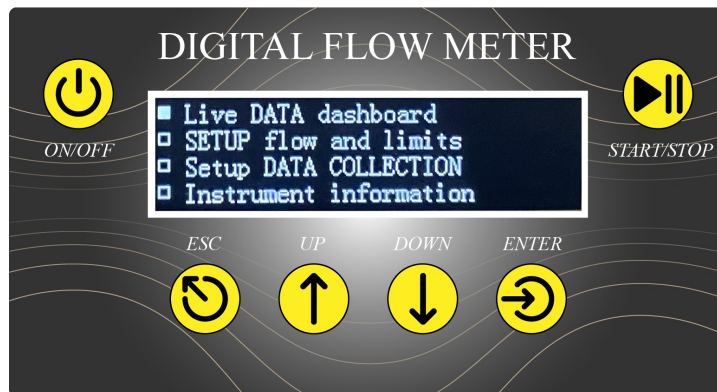
## Standard Aluminum Combination Plastic Filter Holders Available:

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

## Available Engineering Units for Flow and Volume:

SLPM / SLP  
SCFM / SCF  
SCMH / SCM

## Digital Flow Meter Keypad/Display



# LOW VOLUME AIR SAMPLING SYSTEM DIGITAL FLOW METER TECHNOLOGY F&J Model DFCEB-100L-400-12Li

## NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - 12 Ah/12.8VDC LiFePO<sub>4</sub> Battery
- Lightweight — 19 lbs. (8.6 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Brushless Motor
- High Speed Centrifugal Blower
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Displayed With an Optional  
Filter Holder FJ-34**

## GENERAL DESCRIPTION:

F&J Model DFCEB-100L-400-12Li is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) line power, or (2) 12 VDC LiFePO<sub>4</sub> battery.

The DFCEB-100L-400-12Li is well suited for standard low volume air sampling and emergency response sampling activities where users do not know whether line power will be available. Typical operating time from on-board battery is approximately 5 hours utilizing 521147 (47mm diameter) HEPA glass fiber filter media.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned ruggedized plastic enclosure which is water resistant. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 13 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download the sampling data as a .csv file for easy data analysis.



# DFCB-100L-400-12Li DC Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower

**Motor:** High Speed, Brushless (12—15 VDC); 60,000 rpm

**Maximum Flowrate:** 100 LPM typical  
with 521147 HEPA glass fiber media

**Power Source:**  
External – Line Power; 100VAC to 240VAC  
Internal: On-board Battery; 12 Ah LiFePO<sub>4</sub>

**Current Draw:** 8.0 A maximum on 12.8 VDC  
1.0 A maximum on line power

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Handles:** Durable plastic; multiple handles

**Weight:** 19 lbs. (8.6 kg)

**Dimensions:** 16.8”L × 9.0”W × 14.0”H  
(42.7 × 22.9 × 35.6 cm)

**Average Db:** 70 @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
(-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** HHH:MM up to 168 hours

**Flow Control:**  
Adjustable from keypad between 13-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

## Factory Settable Reference T and P

Classical STP	0°C, 1 ATM (760 mmHg)
Normal T and P	20°C, 1 ATM (760 mmHg)
Modified Normal T and P	70°F, 1 ATM (760 mmHg)
Standard Ambient T and P	25°C, 1 ATM (760 mmHg)

## OPTIONS:

- Combination Filter Holder with Rainhood  
47mm Particulate / C Geometry – FJ-47RH  
50mm Particulate / C Geometry – FJ-50RH
- Bluetooth Dongle for PC Device (P/N: BTDG)

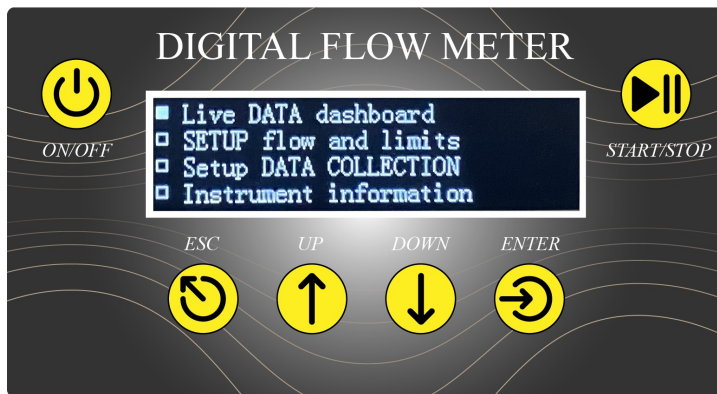
## Optional Aluminum Combination Plastic Filter Holders Available:

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

## Available Engineering Units for Flow and Volume:

SLPM / SLP  
SCFM / SCF  
SCMH / SCM

## Digital Flow Meter Keypad/Display



# LOW VOLUME AIR SAMPLING SYSTEM DIGITAL FLOW METER TECHNOLOGY F&J Model DFCB-100L-400-AC

## NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - External Auxiliary DC Power Input
- Lightweight — 17.6 lbs. (8 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Brushless Motor
- High Speed Centrifugal Blower
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Displayed With an Optional  
Filter Holder FJ-34**

## GENERAL DESCRIPTION:

F&J Model DFCB-100L-400-AC is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) line power, or (2) the auxiliary DC connector (12 – 15 VDC)

The DFCB-100L-400-AC is well suited for standard low volume air sampling and emergency response sampling activities where users have line power or 12 VDC available.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned ruggedized plastic enclosure which is water resistant. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 15 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download the sampling data as a .csv file for easy data analysis.

# DFCB-100L-400-AC / DC Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower

**Motor:** Brushless (12—15 VDC)

**Maximum Flowrate:** 100 LPM typical  
with 521147 HEPA glass fiber media

**Power Source:**  
External – Line Power; 100VAC to 240VAC  
External Auxiliary DC Power Input (12—15VDC)

**Current Draw:** 8.0 A maximum on 12VDC  
1.0 A on line power

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Handles:** Durable plastic; multiple handles

**Weight:** 17.6 lbs. (8 kg)

**Dimensions:** 16.8”L × 9.0”W × 14.0”H  
(42.7 × 22.9 × 35.6 cm)

**Average Db:** 70 @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
(-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** DD:HH:MM up to 168 hours

**Flow Control:**  
Adjustable from keypad between 15-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

## Factory Settable Reference T and P

Classical STP	0°C, 1 ATM
Normal T and P	20°C, 1 ATM
Modified Normal T and P	70°F, 1 ATM
Standard Ambient T and P	25°C, 1 ATM

## OPTIONS:

- Combination Filter Holder with Rainhood  
47mm Particulate / C Geometry – FJ-47RH  
50mm Particulate / C Geometry – FJ-50RH
- Bluetooth Dongle for PC Device (P/N: BTDG)

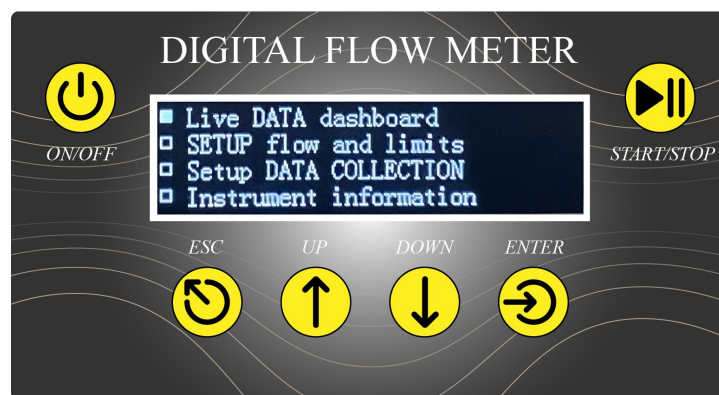
## Optional Combination Plastic Filter Holders Available:

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

## Available Engineering Units for Flow and Volume:

SLPM / SL  
SCFM / SCF  
SCMH / SCM

## Digital Flow Meter Keypad/Display



# EMERGENCY RESPONSE AIR SAMPLING SYSTEM

## DIGITAL FLOW METER TECHNOLOGY

### F&J Model DFCB-ABM50-100L-20Li

#### NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - On-Board Battery (20 Ah Lithium FePo<sub>4</sub>)
- External battery charging system operable from line power input
- Lightweight — 19.7 lbs. (8.9 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



Shown with optional filter holder FJ-34

#### GENERAL DESCRIPTION:

F&J Model DFCB-ABM50-100L-20Li is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) on-board 20 Ah LiFePO<sub>4</sub> battery, or (2) line power.

The DFCB-ABM50-100L-20Li is well suited for emergency response sampling activities where users do not know whether line power will be available. Typical operating time from on-board battery is approximately 8 hours utilizing 521147 (47mm diameter) HEPA glass fiber filter medium.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned ruggedized steel enclosure which is water resistant. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 15 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download the sampling data as a .csv file for easy data analysis.

# DFCB-ABM50-100L-20Li Battery Powered Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower

**Maximum Flowrate:** 100 LPM typical  
with 521147 HEPA glass fiber media

**Power Source:**  
Internal – Li FePO<sub>4</sub>; 12.8 VDC/20 Ah Battery Pack  
External – Line Power; 100VAC to 240VAC

**Battery Charging System:**  
External system which charges from line power  
(100 VAC to 240 VAC, 50/60 Hz)

**Operating Time on Batteries:** 5 to 10 hours on fully  
charged battery

**Current Draw:** 8.0 A maximum on 12VDC  
1.0 A on line power

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Handles:** Durable Metal Handle

**Weight:** 19.7 lbs. (8.9 kg)

**Dimensions:** 13.1”L × 8.2”W × 18.5”H  
(33.0 × 20.3 × 47.0 cm)

**Average Db:** 70 @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
(-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** HHH:MM up to 168 hours

**Flow Control:**  
Adjustable from keypad between 15-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

## Factory Settable Reference T and P

Classical STP	0°C, 1 ATM (760 mmHg)
Normal T and P	20°C, 1 ATM (760 mmHg)
Modified Normal T and P	70°F, 1 ATM (760 mmHg)
Standard Ambient T and P	25°C, 1 ATM (760 mmHg)

## OPTIONS:

- Bluetooth Dongle for PC Device (P/N: BTDG)

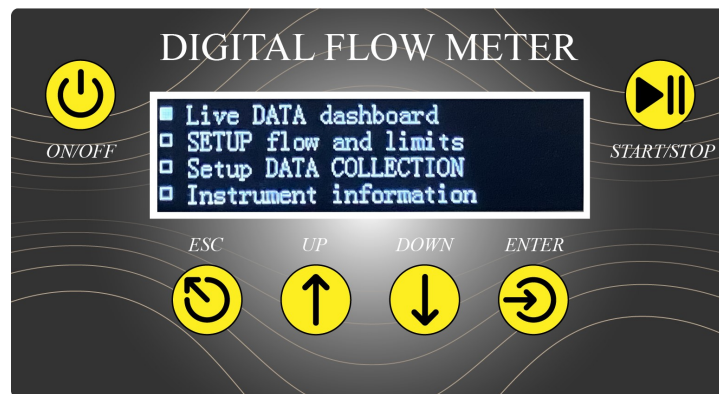
## Standard Aluminum Combination Plastic Filter Holders Available:

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

## Available Engineering Units for Flow and Volume:

SLPM / SLP  
SCFM / SCF  
SCMH / SCM

## Digital Flow Meter Keypad/Display



# EMERGENCY RESPONSE AIR SAMPLING SYSTEM

## DIGITAL FLOW METER TECHNOLOGY

### F&J Model DFCEB-ABM50-100L-30Li

#### NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - On-Board Battery
- Long-lasting 30 Ah Lithium FePO<sub>4</sub> battery pack
- External battery charging system operable from line power input
- Lightweight — 19.7 lbs. (8.9 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Shown with optional  
filter holder FJ-34**

#### GENERAL DESCRIPTION:

F&J Model DFCEB-ABM50-100L-30Li is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) on-board 30 Ah LiFePO<sub>4</sub> battery, or (2) line power.

The DFCEB-ABM50-100L-30Li is well suited for emergency response sampling activities where users do not know whether line power will be available. Typical operating time from on-board battery is approximately 10 hours utilizing 521147 (47mm diameter) HEPA glass fiber filter medium.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned ruggedized steel enclosure which is water resistant. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 15 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download the sampling data as a .csv file for easy data analysis.

# DFCB-ABM50-100L-30Li Battery Powered Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower

**Maximum Flowrate:** 100 LPM typical  
with 521147 HEPA glass fiber media

**Power Source:**

Internal – Li FePO<sub>4</sub>; 12.8 VDC/30 Ah Battery Pack  
External – Line Power; 100VAC to 240VAC

**Battery Charging System:**

External system which charges from line power  
(100 VAC to 240 VAC, 50/60 Hz)

**Operating Time on Batteries:** 5 to 10 hours on fully  
charged battery

**Current Draw:** 8.0 A maximum

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Handles:** Durable plastic; multiple handles

**Weight:** 19.7 lbs. (8.9 kg)

**Dimensions:** 13.1”L × 8.2”W × 18.5”H  
(33.0 × 20.3 × 47.0 cm)

**Average Db:** 70 @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
(-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** HHH:MM up to 168 hours

**Flow Control:**

Adjustable from keypad between 15-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

**Factory Settable Reference T and P**

Classical STP	0°C, 1 ATM (760 mmHg)
Normal T and P	20°C, 1 ATM (760 mmHg)
Modified Normal T and P	70°F, 1 ATM (760 mmHg)
Standard Ambient T and P	25°C, 1 ATM (760 mmHg)

**OPTIONS:**

- Bluetooth Dongle for PC Device (P/N: BTDG)

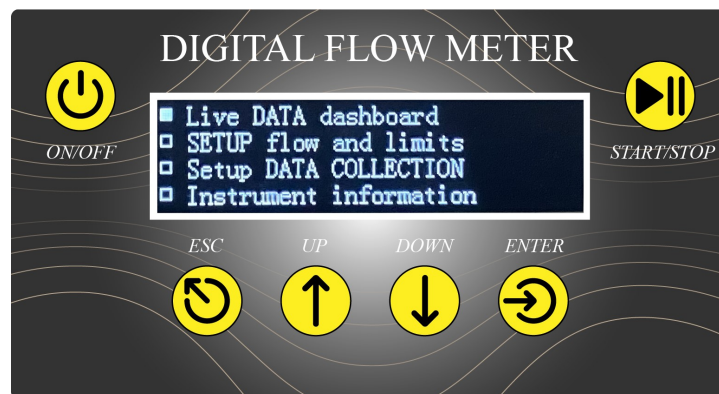
**Standard Aluminum Combination Plastic Filter Holders Available:**

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

**Available Engineering Units for Flow and Volume:**

SLPM / SLP  
SCFM / SCF  
SCMH / SCM

**Digital Flow Meter Keypad/Display**



# EMERGENCY RESPONSE AIR SAMPLING SYSTEM

## DIGITAL FLOW METER TECHNOLOGY

### F&J Model DFCB-ABM50-100L-AC

#### NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250 VAC)
  - External Auxiliary DC Power Input
- Lightweight — 14 lbs. (6.6 kg)
- Maximum Flow 100 LPM with 521147 HEPA Glass Fiber Filter Paper
- Bright OLED Display; 4 Line x 32 characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Shown with optional filter holder FJ-34**

#### GENERAL DESCRIPTION:

F&J Model DFCB-ABM50-100L-AC is a lightweight, small footprint, AC or DC voltage powered air sampling system operable from line power, or (2) the optional auxiliary DC connector (12 – 15 VDC)

The DFCB-ABM50-100L-AC is well suited for low volume air sampling, or emergency response sampling activities.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a lightweight small dimensioned ruggedized steel enclosure which is water resistant. The unit can be carried very easily by its large, rugged handle.

Typical flow range is 15 - 100 SLPM (0.5 — 3.5 SCFM).

The air sampler is also equipped with internal data storage that allows user to download via Bluetooth the sampling data as a .csv file for easy data analysis. An optional Bluetooth dongle is required.



# DFCB-ABM50-100L-AC Battery Powered Air Sampler Specifications

**Pump Type:** High efficiency centrifugal blower

**Maximum Flowrate:** 100 LPM typical  
with 521147 HEPA glass fiber media

**Power Source:**  
External – Line Power; 100VAC to 240VAC  
External Auxiliary DC Power Input (12-15VDC)

**Current Draw:** 8.0 A maximum on 12VDC  
2.0 A maximum on line power

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Handles:** Durable plastic; multiple handles

**Weight:** 14 lbs. (6.6 kg)

**Dimensions:** 13.8”L × 9.5”W × 9”H  
(35.0 × 24.2 × 22.8 cm)

**Average Db:** 70 @ 1 meter

**Operating Temperature Range:** 18°F to 122°F  
(-10°C to 50°C)

**Display:** Bright OLED (4 line x 32 character)

**Elapsed Time:** DD:HH:MM up to 168 hours

**Flow Control:**  
Adjustable from keypad between 15-100 LPM

**Flow Accuracy:** ±4.0% of Full Scale

**Factory Settable Reference T and P**

Classical STP	0°C, 1 ATM
Normal T and P	20°C, 1 ATM
Modified Normal T and P	70°F, 1 ATM
Standard Ambient T and P	25°C, 1 ATM

**OPTIONS:**

- Bluetooth Dongle for PC Device (P/N: BTDG)

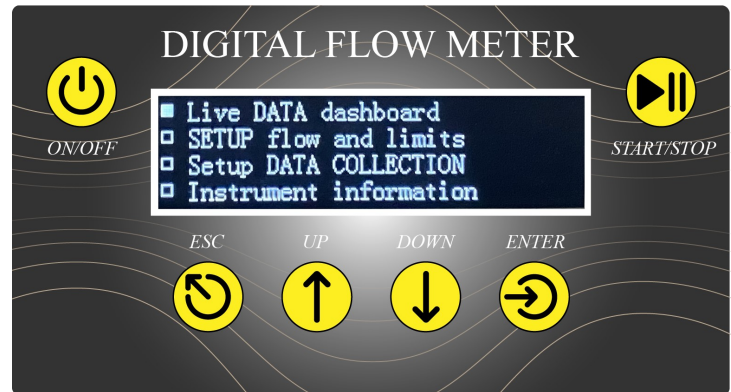
**Standard Combination Plastic Filter Holders Available:**

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

**Available Engineering Units for Flow and Volume:**

- SLPM / SL
- SCFM / SCF
- SCMH / SCM

**Digital Flow Meter Keypad/Display**



# EMERGENCY RESPONSE AIR SAMPLING SYSTEM

## DIGITAL FLOW METER TECHNOLOGY

### F&J MODEL DFCB-ABM50-170L-20Li

#### NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
  - Line Power (100VAC – 250VAC)
  - On-board 20Ah Lithium Fe(PO<sub>4</sub>) battery
- Lightweight — 20 lbs. (9.1 kg)
- Maximum Flow 170L SLPM with fiber glass media (98% DOP efficiency)
- Bright OLED Display; 4 Line x 32 Characters
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- Brushless 12 VDC motor
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Shown with optional  
filter holder FJ-34**

#### NOTABLE FEATURES:

F&J Model DFCB-ABM50-170L-20Li is a military grade lightweight, small footprint, AC/DC voltage powered air sampling system operable from (1) line power, or (2) from the on-board 20Ah LiFe(PO<sub>4</sub>).

The DFCB-ABM50-170L-20Li is well suited for emergency response air sampling activities and where users do not know whether line power will be available. The unit may be operated from the on-board lithium ion battery, solar power, or a wind power source through the DC input connectors coupled to a battery bank charged from the alternative energy source.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a rugged, metal, small dimensioned enclosure which is water tight. The unit can be carried very easily by its metal handle.

Typical flow range is 50 - 170 SLPM (1.8 – 6 SCFM).

The air sampler is also equipped with internal data storage that allows the user to download the sampling data as a .csv file for easy data analysis.

# DFCB-ABM50-170L-20Li AC/DC Powered Air Sampler Specifications

**Pump Type:** High speed centrifugal blower

**Motor:** Brushless 12 VDC; 60,000 rpm

**Maximum Flowrate:** 170 LPM typical  
with glass fiber media (98% DOP efficiency)

**Power Source:**  
Line Power; 100VAC or 250VAC  
On-board 20Ah Life(PO<sub>4</sub>)

**Current Draw:** 8.0 A maximum

**Filter Holder Fitting:** 1.83—12 U.N.F (Air Sampler)  
1.80—12 U.N.M (Filter Holder)

**Enclosure:** Steel

**Handle:** Durable metal

**Weight:** 20 lbs. (9.1 kg)

**Dimensions:** 13.8”L × 9.5”W × 9”H  
(35.0 × 24.2 × 22.8 cm)

**Operating Temperature Range:**  
18°F-122°F (-10°C-50°C)

**Display:** Bright OLED (4 Line x 32 Characters)

**Elapsed Time:** HHH:MM up to 168 hours

**Flow Control:**  
Adjustable from keypad between 50-170 LPM

**Flow Accuracy:** ±4.0% of Full Scale

**Factory Settable Reference T and P**

Classical STP	0°C, 1 ATM (760 mmHg)
Normal T and P	20°C, 1 ATM (760 mmHg)
Modified Normal T and P	70°F, 1 ATM (760 mmHg)
Standard Ambient T and P	25°C, 1 ATM (760 mmHg)

**OPTIONS:**

- Bluetooth Dongle for PC Device (P/N: BTDG)

**Optional**

**Standard Aluminum Combination Filter Holders Available**

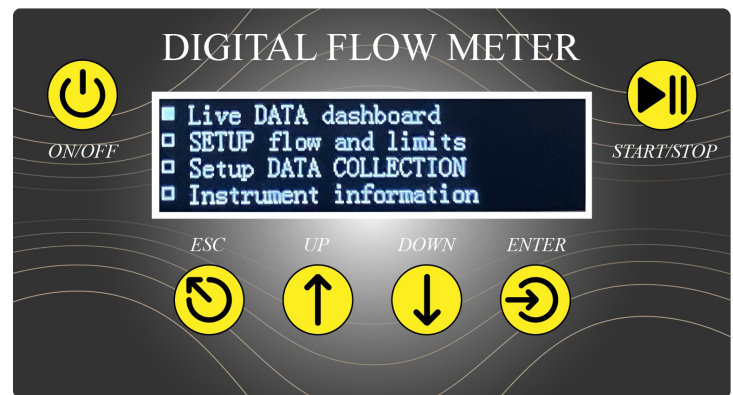
<b>FILTER HOLDER MODEL</b>	<b>CHARCOAL CARTRIDGE DIMENSIONS</b>	<b>PARTICULATE PAPER DIAMETER</b>
FJ-19	F&J Model C	2” or 50 mm
FJ-27	F&J Model B	2” or 50 mm
FJ-34	F&J Model C	47 mm
FJ-39	F&J Model B	47 mm
FJ-52	F&J Model M	2” or 50 mm
FJ-54	F&J Model M	47 mm

Filter holders for 102 mm to 150 mm diameter filter media are available

**Available Engineering Units for Flow and Volume:**

- SLPM / SLP
- SCFM / SCF
- SCMH / SCM

**Digital Flow Meter Keypad/Display**



## INDOOR COMBINATION FILTER HOLDERS

### Aluminum Filter Holders

<b>FJ-19</b>	2.0" particulate - Model C
<b>FJ-27</b>	2.0" Particulate - Model B
<b>FJ-34</b>	47 mm Particulate - Model C
<b>FJ-39</b>	47 mm Particulate - Model B
<b>FJ-52</b>	2.0" Particulate - Model M
<b>FJ-54</b>	47 mm Particulate - Model M

### Plastic Filter Holders

<b>FJ-19P</b>	2.0" particulate - Model B
<b>FJ-27P</b>	2.0" Particulate - Model C
<b>FJ-34P</b>	47 mm Particulate - Model B
<b>FJ-39P</b>	47 mm Particulate - Model C
<b>FJ-52P</b>	2.0" Particulate - Model M
<b>FJ-54P</b>	47 mm Particulate - Model M

# PORTABLE 12V EXTERNAL LI-BATTERY BANK FOR F&J AC/DC AIR SAMPLERS Model LIBATBANK-12V

## NOTABLE FEATURES:

- Light weight, durable and efficient Lithium-ion batteries
- Internal battery charging system operable from line power input (100—240VAC, 50/60 Hz)
- Digital and graphical battery capacity indicator (OLED)
- Small dimensioned , water tight enclosure with a large rugged plastic handle for easy carry
- Water tight connection port for powering units outdoors



**Lithium-Ion Battery Bank**

## GENERAL DESCRIPTION:

F&J model LIBATBANK-12V is a light weight one man carry 12V battery bank for use with 12 VDC powered F&J air samplers. The battery bank is approximately 35 Ah and is housed in a small foot print water tight enclosure.

The LIBATBANK-12V can be charged by plugging it into line power (100—240VAC, 50/60Hz) and provides short circuit/reverse polarity protection.

The LIBATBANK-12V includes an OLED display for voltage level and percent capacity of the battery bank. It is provided with a power cord for charging the system and a DC cord for connection to 12VDC powered F&J AC/DC air samplers.

# LIBATBANK-12V Specifications

- Battery Type:**
- Lithiom Iron Phosphate (LiFePO<sub>4</sub>)
  - 12V 35 Ah Battery Pack
  - Built-in Battery Management System
- Battery Charging System:**
- Internal battery charging system operable from line power (100—240VAC, 50/60Hz)
  - Short circuit / Reverse Polarity Protector
- Enclosure:** Rugged water tight plastic enclosure with a large durable handle
- Weight:** 20.5 lbs (~9.29 kgs)
- Dimensions:** 16.8”L x 9.0”W x 14.0”H  
(42.7 x 22.9 x 35.6 cm)
- Display:** Bright OLED battery capacity indicator



# WORLD CALIBRATOR PC INTERFACEABLE



**WORLD CALIBRATOR  
Displayless Version**



**WORLD CALIBRATOR  
Vacuum Fluorescent Display  
(VFD) Version**

**Notable Features:**

- PC Interface program:
  - Western or Asian Languages
- Operator Selectable Options
  - Multiple language options; European or Asian Version
  - Multi gas option
  - Volumetric or mass flow
  - At Reading or Full Scale Accuracy Calibration Type
  - Reference T and Reference P
  - Engineering units for all reported parameters
- Semi-Automatic calibration-verification when used with F&J digital air samplers
- Customizable calibration report
- Standard Accuracy:  $\pm 1.0\%$  Full Scale (F.S.)
- Customizable to 1% of Reading Accuracy
- Two Year Warranty
- Complementary Storage Case

**Notable Features:**

- Vacuum Fluorescent Display:
  - (4 lines $\times$ 24 characters)
- 4 button key pad for stand alone operation
- Mass flow or Volumetric flow
- Volume Totalization Feature
- Operator selectable Reference T and P
- Operator selectable engineering units
- Multi gas option
- Standard Accuracy:  $\pm 1.0\%$  Full Scale (F.S.)
- Customizable to 1% of Reading Accuracy
- User customizable calibration report
- Semi-Automatic calibration-verification when used with F&J digital air samplers
- PC Interface program:
  - Western or Asian languages
- Two Year Warranty
- Complimentary Storage Case

# 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 Flow Meter 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
- JUNIOR 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

