

# Fume Extraction

REMOVES HARMFUL

*Particulates and Gases*

*the latest advancements in filter condition monitoring and process control*



**PAGE**

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## **PACE Fume Extraction Systems**

As the full solution provider in the electronics industry, PACE has set the standard for over 15 years by leading technology development for fume extraction equipment specifically designed to meet the requirements of the electronics industry and by educating the industry on the effects of exposure and how to protect workers.

PACE offers Fume Extraction Systems that feature the latest advancements in filter condition monitoring and process control as well as cost effective solutions that incorporate many of our best features. A variety of collection accessories are available that offer highly effective source capture or wide area extraction to meet virtually any application.

Each system is composed of rugged steel construction and includes a heavy-duty, brushless motor for years of trouble-free service. Convenient, disposable filter cartridges are easily changed, eliminating the need for messy cleaning and costly service visits.

## **The Benefits of PACE Fume Extraction**

1. Fumes are pulled away from the primary solderer.
2. As flux fumes are removed at their source, secondary exposure of other operators is eliminated.
3. Assemblies and the work area are kept clean from flux fume contamination.
4. Filtered air is recirculated back into the work environment instead of being vented to the outside. Therefore, energy savings in the form of air conditioning and heating costs are realized.
5. Unfiltered air is not exhausted to the outside which may require costly environmental permits and pollution control devices.
6. PACE Fume Extraction Systems offer the greatest flexibility as they are modular and can be easily disassembled and reassembled in another location as manufacturing processes and layouts change.

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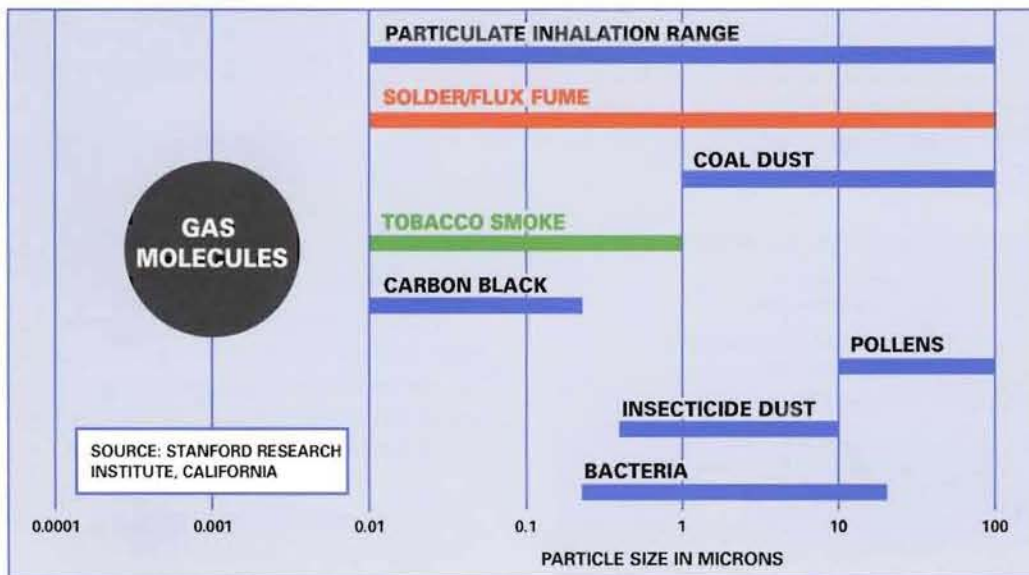
## Why is Fume Extraction Needed?

It's a fact... hazardous fumes in the working environment result in increased absenteeism, employee turnover, worker's compensation claims and lost productivity. Medical research has confirmed an increased incidence of occupational asthma, chronic bronchitis, allergic reactions, contact dermatitis and other health related effects associated with exposure to flux fumes. The substances in flux fumes are regulated by international health and safety agencies and many have been designated as "Occupational Sensitizers" which means that exposure should be eliminated or reduced to as low levels as possible. Where manual soldering is being performed or where solder-pots/fountains are utilized, hazardous fumes are produced and workers need to be protected from them.

### FACT: Exposure to Solder Fumes Lead to Respiratory Illness

When rosin-based or rosin-containing fluxes are heated, a substance called colophony is produced which is one of the major causes of occupational asthma. In order to reduce exposure to colophony, rosin-based fluxes have been exchanged for no-clean or synthetic fluxes that contain no rosin or very low percentages. While this reduces or eliminates exposure to colophony, new chemical irritants may be introduced into the work place, many of which pose a more substantial threat to workers. Over 95% of the total fume produced from rosin-based fluxes is in the form of particulates.

Chemical exposure from flux fume varies widely and is dependent on the chemical composition of the flux. Non-rosin or low-rosin fluxes use chemically aggressive substances such as acids, solvents, or alcohols in place of rosin to improve the cleaning action of the flux. Exposure to these substances is also recognized as hazardous and when flux is heated, the resultant chemical by-products can be even more hazardous. Additionally, the use of cleaners, solvents or adhesives, which are common in electronic soldering applications, expose workers to chemical hazards.



The human body has been designed with defense mechanisms such as nasal passageways lined with mucus that will collect larger particles through a process known as impaction and ciliated breathing passageways to remove foreign substances from the main airways of the lungs. Flux fumes contain high levels of respirable particles (less than 3.5 microns in diameter: similar in size to cigarette smoke) that can pass by these natural defense mechanisms, and deposit themselves in the gas-exchange region of the lungs, thereby posing the greatest exposure hazard.

### FACT: Material Safety Data Sheets for Fluxes Recommend the Use of Local Exhaust Ventilation Systems

The health effects caused by exposure to flux fumes are generally limited to forms of respiratory illness and contact dermatitis. However, since the components of flux fume are often designated as "occupational sensitizers", chronic or prolonged exposure increases the severity of health effects. PACE Fume Extraction is a key element in protecting workers from being exposed to flux fume.

# ARM-EVAC 50

## Fume Extraction



Arm-Evac 50

### Arm-Evac 50 Features

The Arm-Evac 50 is a unique, portable, cost-effective, bench-top fume extractor that provides wide area fume extraction or highly efficient source capture at two points using the optional arm attachment. The Arm-Evac 50 features operator adjustable airflow, quiet operation and a wide variety of filters to meet the needs of virtually any application.

### Arm-Evac 50 System Specifications

|                          |  |
|--------------------------|--|
| Unit:                    | Arm-Evac 50  |
| (Dual Voltage)           | P/N 8889-0050  |
|                          | Optional Arm Attachment  |
|                          | P/N 8886-0055  |
| Power Requirements:      | 115 or 230 VAC, 50/60 Hz   |
| Dimensions:              | 215mm H x 330mm W x 315mm D<br>(8.5" H x 13.0" W x 12.5" D)  |
| Weight:                  | 6 Kg (13 pounds)   |
| Noise Level*:            | 54 dBA   |
| Number of Inlets:        | One laminar flow, plenum inlet   |
| Flow Rate*:              | Adjustable: 152 m <sup>3</sup> /h (90 cfm) max with Plenum,<br>One Arm Adjustable: 84.5 m <sup>3</sup> /h (45 cfm) max<br>Two Arms Adjustable: 60 m <sup>3</sup> /h (30 cfm) max per arm |
| System Options:          | Dual Arm Accessory   |
| Standard Primary Filter: | General Purpose Filter   |
| Filtration Options:      | General Purpose Filter<br>Cleanroom Filter<br>Adhesive Filter<br>Economy Filter  |

\* Air flow and noise level are nominal numbers and will vary based on voltage.



Arm-Evac 50 shown with optional Dual Arm Attachment



Arm-Evac 50 providing fume extraction to two workstations





## FX 50 and Turbo Exhauster

for the Benchtop



### FX 50 Features

The FX 50 Fume Exhauster is designed to remove solder/flux fumes from the operators breathing zone by drawing harmful fumes through a carbon impregnated, foam filter. The FX 50 features high airflow, quick and easy filter change-out, pre drilled holes for variable mounting, three height adjustments, and swivel action.

### FX 50 System Specifications

|                     |  |                         |
|---------------------|--|-------------------------|
| Unit:               | FX 50<br>P/N 8884-0920                                     | FX 50E<br>P/N 8884-0925 |
| Power Requirements: | 115 VAC, 60 Hz   | 230 VAC, 50 Hz          |
| Dimensions:         | 168mm H x 220mm W x 270mm D<br>(6.6" H x 8.7" W x 10.5" D) |                         |
| Weight:             | 1.6 Kg (3.5 pounds)  |                         |
| Noise Level*:       | 52 dBA   |                         |
| Number of Inlets:   | One  |                         |
| Flow Rate*:         | 60 m <sup>3</sup> /h (35 cfm)                              |                         |
| Standard Filter:    | Activated Carbon Impregnated Foam Filter                   |                         |



Attaches easily to board holders



Mounted beneath an overhanging structure using two mounting screws

### Turbo Exhauster Features

The Turbo Exhauster offers convenience and portability at an affordable price. Featuring a high airflow fan and wide area fume removal, the Turbo Exhauster is ideal for intermittent operations. The carbon impregnated foam filter is easily changed and the low profile design allows it to be placed on virtually any workbench.

### Turbo Exhauster System Specifications

|                     |   |                                   |
|---------------------|---|-----------------------------------|
| Unit:               | Turbo Exhauster<br>P/N 8888-0605                          | Turbo ExhausterE<br>P/N 8888-0600 |
| Power Requirements: | 115 VAC, 60 Hz  | 230 VAC, 50 Hz                    |
| Dimensions:         | 89mm H x 550mm W x 240mm D<br>(3.5" H x 21.5" W x 9.5" D) |                                   |
| Weight:             | 7.5 Kg (16.5 pounds)                                      |                                   |
| Noise Level*:       | 54 dBA  |                                   |
| Number of Inlets:   | One   |                                   |
| Flow Rate*:         | 128m <sup>3</sup> /h (75 cfm)                             |                                   |
| Standard Filter:    | Activated Carbon Impregnated Foam Filter                  |                                   |

\* Air flow and noise level are nominal numbers and will vary based on voltage.



Turbo Exhauster



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# ARM-EVAC 105 / 200

## Arm-Evac 105 Features

The best protection from harmful fumes in its price range. The Arm-Evac 105 is portable, compact and can be easily placed on or under a workbench. The unit includes a brushless motor and the housing is made of heavy duty, 20 gauge steel. An inlet cap is provided to seal the unused inlet if only one flex arm is used.

## Arm-Evac 105 System Specifications

|                     |  |                                |
|---------------------|--|--------------------------------|
| Unit:               | Arm-Evac 105<br>P/N 8888-0110                                | Arm-Evac 105E<br>P/N 8888-0105 |
| Power Requirements: | 115 VAC, 60 Hz   | 230 VAC, 50 Hz                 |
| Dimensions:         | 500mm H x 290mm W x 290mm D<br>(19.6" H x 11.5" W x 11.5" D) |                                |
| Weight:             | 11.5 Kg (25.3 pounds)  |                                |
| Noise Level*:       | 55 dBA   |                                |
| Number of Inlets:   | Two 75 mm (3")   |                                |



Arm-Evac 105

## Arm-Evac 200 System Specifications

|                         |   |                                |
|-------------------------|---|--------------------------------|
| Unit:                   | Arm-Evac 200<br>P/N 8889-0205   | Arm-Evac 200E<br>P/N 8889-0200 |
| Power Requirements:     | 115VAC, 60 Hz   | 230VAC, 50 Hz                  |
| Dimensions:             | 393mm H x 282mm W x 365mm D<br>(15.4" H x 14.3" W x 11.1" D)  |                                |
| Weight:                 | 13.75 Kg (30.25 pounds)   |                                |
| Noise Level*:           | 58 dBA  |                                |
| Number of Inlets:       | Two 75mm (3")   |                                |
| Flow Rate*:             |   |                                |
| General Purpose Filter: | Single Inlet: 288 m <sup>3</sup> /h (170 cfm);<br>Dual Inlet: 170 m <sup>3</sup> /h (100 cfm) per inlet |                                |
| Cleanroom Filter:       | Single Inlet: 255 m <sup>3</sup> /h (150 cfm);<br>Dual Inlet: 135 m <sup>3</sup> /h (80 cfm) per inlet  |                                |

## Portable Fume Extraction



Arm-Evac 200

|                              |   |
|------------------------------|---|
| Flow Rate*:                  |   |
| General Purpose Filter:      | Single Inlet: 220 m <sup>3</sup> /h (130 cfm);<br>Dual Inlet: 118 m <sup>3</sup> /h (70 cfm) per inlet  |
| Cleanroom Filter:            | Single Inlet: 187 m <sup>3</sup> /h (110 cfm);<br>Dual Inlet: 105 m <sup>3</sup> /h (62 cfm) per inlet  |
| # of Collection Accessories: | Two 65mm (2.5") or 75mm (3")  |
| Maximum Duct Run:            | 2.5m (8') per inlet   |
| Standard Primary Filter:     | General Purpose Filter  |
| Filtration Options:          | General Purpose Filter<br>Cleanroom Filter<br>Adhesive Filter<br>Extended Life Filter<br>Economy Filter |

## Arm-Evac 200 Features

The Arm-Evac 200 is designed to meet the needs of light duty production as well as rework and repair operations. Lightweight and compact, the Arm-Evac 200 installs in minutes. A wide variety of collection accessory options and filters are available. An optional silencer/mobile cart is also available.

|                              |   |
|------------------------------|---|
| # of Collection Accessories: | Four 45mm (1.75") or 50mm (2")<br>Two 65mm (2.5") or 75mm (3")  |
| Maximum Duct Run:            | 5m (16') per inlet  |
| System Options:              | Silencer/Mobile Cart (P/N 8885-1225)<br>Remote Control Box (P/N 8884-2250)                              |
| Standard Primary Filter:     | General Purpose Filter  |
| Filtration Options:          | General Purpose Filter<br>Cleanroom Filter<br>Adhesive Filter<br>Extended Life Filter<br>Economy Filter |

\* Air flow and noise level are nominal numbers and will vary based on voltage.



# ARM-EVAC 250

## Systems for 1 to 4 Workstations



### Silencer/Mobile Cart for Arm-Evac 200/250

- Constructed of 18-gauge steel and acoustical foam baffle liner. Includes front locking casters.
- Dimensions:  
182mm H x 287mm W x 368mm D  
(7.2" H x 11.3" W x 14.4" D)
- Weight: 4.5 Kg (10 lbs)



### Benchtop Controller for Arm-Evac 250

- Includes LED filter condition monitor, three-speed controller and remote cable
- Dimensions: 35mm H x 87mm W x 145mm D  
(1.4" H x 3.4" W x 5.7" D)



### ARM-EVAC 250 Features

The Arm-Evac 250 is ideal for heavy-duty operations that need high capacity and continuous particle filter monitoring. Incorporating microprocessor technology, an easy-to-read graphical LED filter condition monitor changes from green to yellow to red as the filter becomes clogged. Additionally, flow sensors increase power to the motor as filters become blocked to assure peak performance. The filter monitoring system self calibrates using a key-switch on the front panel, and an audible alarm alerts the operator when a filter change is required. A three position motor speed switch is also on the front panel. A wide variety of collection accessory options and filters are available.

### ARM-EVAC 250 System Specifications

|                               |   |                                |
|-------------------------------|---|--------------------------------|
| Unit:                         | Arm-Evac 250<br>P/N 8889-0255   | Arm-Evac 250E<br>P/N 8889-0250 |
| Power Requirements:           | 115 VAC, 60 Hz  | 230 VAC, 50 Hz                 |
| Dimensions:                   | 393mm H x 282mm W x 365mm D<br>(15.5" H x 11" W x 13" D)  |                                |
| Weight:                       | 14 Kg (31 pounds)   |                                |
| Noise Level:                  | 58 dBA  |                                |
| Number of Inlets:             | Two 75mm (3")   |                                |
| Flow Rate:                    |   |                                |
| General Purpose Filter:       | Single Inlet: 288 m <sup>3</sup> /h (170 cfm);<br>Dual Inlet: 170 m <sup>3</sup> /h (100 cfm) per inlet |                                |
| Cleanroom Filter:             | Single Inlet: 255 m <sup>3</sup> /h (150 cfm);<br>Dual Inlet: 135 m <sup>3</sup> /h (80 cfm) per inlet  |                                |
| # of Collections Accessories: | Four 45mm (1.75") or 50mm (2")<br>Two 65mm (2.5") or 75mm (3")  |                                |
| Microprocessor Control:       | Yes   |                                |
| Maximum Duct Run:             | 5m (16') per inlet  |                                |
| System Options:               | Silencer/Mobile Cart (P/N 8885-1225)<br>Remote Control Box (P/N 8884-2250)                              |                                |
| Standard Primary Filter:      | General Purpose Filter  |                                |
| Filtration Options:           | General Purpose Filter<br>Cleanroom Filter<br>Adhesive Filter<br>Extended Life Filter<br>Economy Filter |                                |

# ARM-EVAC 500

## Centralized Fume Extraction for



### Arm-Evac 500 Features

The Arm-Evac 500 is perfectly suited for high performance cellular manufacturing activities and provides fume extraction for up to 6 workstations. This unit boasts a high airflow motor pump with an effective three-stage filtration system. Incorporating microprocessor technology, an easy-to-read graphical LED filter condition monitor changes from green to yellow to red as the filter becomes clogged. The filter monitoring system self calibrates using a key-switch on the front panel, and an audible alarm alerts the operator when a filter change-out is required. A wide variety of collection accessory options and filters are available.

### Arm-Evac 500 System Specification

|                               |   |                |
|-------------------------------|---|----------------|
| Unit:                         | Arm-Evac 500  | Arm-Evac 500E  |
|                               | P/N 8889-0505   | P/N 8889-0500  |
| Power Requirements:           | 115 VAC, 60 Hz  | 230 VAC, 50 Hz |
| Dimensions:                   | 640mm H x 400mm W x 500mm D<br>(25" H x 15.75" W x 19.5" D)   |                |
| Weight:                       | 28 Kg (62 pounds)   |                |
| Noise Level*:                 | 61 dBA  |                |
| Number of Inlets:             | Three 75mm (3")   |                |
| Flow Rate*:                   |   |                |
| General Purpose Filter:       | Single Inlet: 451 m <sup>3</sup> /h (266 cfm);<br>Dual Inlet: 283 m <sup>3</sup> /h (167 cfm) per inlet |                |
| Cleanroom Filter:             | Single Inlet: 414 m <sup>3</sup> /h (244 cfm);<br>Dual Inlet: 236 m <sup>3</sup> /h (140 cfm) per inlet |                |
| # of Collections Accessories: | Six 45mm (1.75") or 50mm (2")<br>Three 65mm (2.5") or 75mm (3")   |                |
| Microprocessor Control:       | Yes   |                |
| Maximum Duct Run:             | 5m (16") per inlet  |                |
| System Options:               | Silencer/Mobile Cart (P/N 8885-1255)<br>Remote Control Box (P/N 8884-2260)                              |                |
| Standard Primary Filter:      | General Purpose Filter  |                |
| Filtration Options:           | General Purpose Filter and Activated Carbon Filter<br>Cleanroom Filter and Activated Carbon Filter      |                |

\* Air flow and noise level are nominal numbers and will vary based on voltage.

### Silencer/Mobile Cart for Arm-Evac 500

- Constructed of 18-gauge steel and acoustical foam baffle liner. Includes front locking casters.
- Dimensions: 182mm H x 380mm W x 444mm D (7.2" H x 15.0" W x 17.5" D)
- Weight: 6.0 Kg (13.2 lbs)



Arm-Evac 500 on optional Silencer/Mobile Cart

### Benchtop Controller for Arm-Evac 500

- Includes LED filter condition monitor, on/off controller and remote cable
- Dimensions: 140mm H x 87mm W x 145mm D (1.4" H x 3.4" W x 5.7" D)





# ARM-EVAC 1200

## Production & Training Applications



### Arm-Evac 1200 Features

The Arm-Evac 1200 is designed to serve the needs of large production and training facilities. Featuring a unique high-pressure, radial pump, which allows for long ducting runs, the Arm-Evac 1200 provides fume extraction to even the remotest work-station. A front mounted microprocessor control panel contains a multi-function keypad and six-language LCD display with particle and gas filter condition monitoring by way of semiconductor based particle and filter pressure and gas sensors. Control parameters include: particle and gas filter monitoring, service interval, on/off control and auto on/off timer. The system is self-calibrating and is password protected. An optional wall mounted controller is available. A silencer is standard as are 4 posi-lock casters.

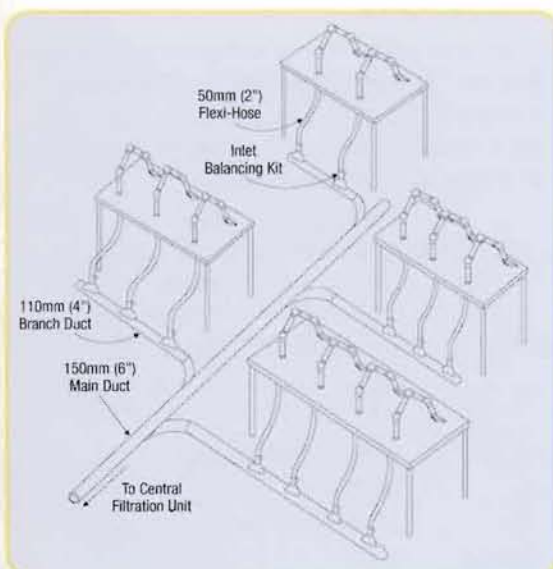
### Arm-Evac 1200 System Specifications

|                               |  |                                 |
|-------------------------------|--|---------------------------------|
| Unit:                         | Arm-Evac 1200<br>P/N 8889-1205   | Arm-Evac 1200E<br>P/N 8889-1200 |
| Power Requirements:           | 115 VAC, 60 Hz   | 230 VAC, 50 Hz                  |
| Dimensions:                   | 1300mm H x 650mm W x 790mm D<br>(51" H x 31.1" W x 25.5" D)  |                                 |
| Weight:                       | 130 Kg (285 pounds)  |                                 |
| Noise Level:                  | 61 dBA   |                                 |
| Number of Inlets:             | One 150mm (6")<br>Four 75mm (3")   |                                 |
| Flow Rate:                    | 1000 m <sup>3</sup> /h (590 cfm) for 150mm inlet<br>215 m <sup>3</sup> /h (125 cfm) per inlet<br>75mm (3") inlet = 860 m <sup>3</sup> /h (500 cfm) Total |                                 |
| # of Collections Accessories: | Sixteen 45mm (1.75")<br>Fourteen 50mm (2")<br>Ten 65mm (2.5")<br>Eight 75mm (3")   |                                 |
| Microprocessor Controls:      | Yes  |                                 |
| Maximum Duct Run:             | 80m (260')   |                                 |
| System Options:               | Remote Control Box (P/N 8884-2255)   |                                 |
| Standard Primary Filter:      | Cleanroom Filter   |                                 |
| Filtration Options:           | Cleanroom Filter and Activated Carbon Filter   |                                 |

\* Air flow and noise level are nominal numbers and will vary based on voltage.



Central unit installation in training center



Typical ducting installation using articulated arms



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ARMS  
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WORKTABLE  
AND PLENUM  
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# LAB-EVAC 100 / 150

## Fume Cabinet Enclosure Systems

### Lab-Evac 100 Features

The Lab-Evac 100 is a portable fume enclosure system that is ideal for temporary applications. The Lab-Evac 100 is constructed from clear ABS plastic and features a tempered safety glass panel for maximum visibility into the cabinet enclosure. Requires connection to the Arm-Evac 105, 200 or 250 and comes with a 2.5 m (8') length of flexible hose.

### Lab-Evac 100 System Specifications

|                |  |
|----------------|--|
| Unit:          | Lab-Evac 100<br>P/N 8882-0711                                |
| Dimensions:    | 355mm H x 685mm W x 495mm D<br>(14.0" H x 27.0" W x 19.5" D) |
| Weight:        | 3.5 Kg (8.0 pounds)  |
| Front Opening: | 510mm x 140mm (20.0" x 5.5")                                 |



Lab-Evac 100



Lab-Evac 150

### Lab-Evac 150 Features

Portability and front panel control. Take the solution to your problem with the Lab-Evac 150. This versatile unit offers a self-contained work center with separate Pre, Cleanroom, and Carbon filters. Ideal for cleaning agents, conformal coatings, UV curing, and cyanoacrylate applications. An optional adhesive filter is available.

### Lab-Evac 150 System Specifications

|                          |   |                                |
|--------------------------|---|--------------------------------|
| Unit:                    | Lab-Evac 150<br>P/N 8889-0105                                   | Lab-Evac 150E<br>P/N 8889-0100 |
| Power Requirements:      | 115 VAC, 60 Hz  | 230 VAC, 50 Hz                 |
| Dimensions:              | 500mm H x 625mm W x 600mm D<br>(19.6" H x 24.6" W x 23.6" D)    |                                |
| Weight:                  | 41 Kg (90 pounds)   |                                |
| Noise Level*:            | 56 dBA  |                                |
| Flow Rate*:              | 340 m <sup>3</sup> /h (200 cfm)                                 |                                |
| Microprocessor Control:  | Yes   |                                |
| Standard Primary Filter: | Cleanroom Filter  |                                |
| Filtration Options:      | Cleanroom Filter and Activated Carbon Filter<br>Adhesive Filter |                                |

\* Air flow and noise level are nominal numbers and will vary based on voltage.



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FX 50 AND  
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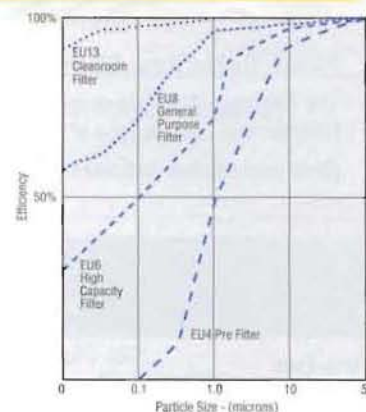
# FUME Filters

PACE's Filtration Systems have been specifically designed for application in the electronics industry. A wide variety of filtration options are available for use with PACE Fume Extractors ensuring that you always have the right filter for the job.







Filtration systems for soldering applications are comprised of three filters. As fumes are collected, they first encounter the **Pre-Filter**, which is a lower efficiency particle filter that is used to protect the primary filter from large particles, extending the life of the primary filter. Next is the **Primary Particle Filter** which is a particulate filter with large surface area having efficiency ratings of 65% and higher. A variety of filtration efficiencies are available to suit your needs. Lastly, a **Gas Filter** is included to eliminate any hazardous gases that may be present.

PACE's gas filters use high-grade activated carbon or they combine adsorptive and chemisorptive technologies to maximize effectiveness. To fully understand your gas filtration needs, always consult your Material Safety Data Sheet.

The Arm-Evac 50, 105, 200, and 250 use "Combo Filters" which means that the Primary and Gas filters are contained in one filter cartridge. The Lab-Evac 100, Arm-Evac 500 and 1200 use separate Primary and Gas filters which need to be changed individually. Pre-filters should be inspected at least weekly. When they become clogged, they should be replaced immediately to maximize primary filter life.



## Types of Filters

| Filter Type   | Filter Efficiency Rating | Recommended Application   |
|---|--------------------------|---|
|  Pre-Filters             | 65% ASHRAE<br>EU 4       | Recommended for use with all filtration systems.  |
|  Economy Filters         | N/A<br>N/A               | Recommended for soldering applications where cost-effective solutions are required. Ideal for applications where coarse dust is generated.  |
|  General Purpose Filters | 85%<br>EU 8              | Recommended for soldering applications where normal volumes of fumes are being generated for 1 or 2 shifts.   |
|  Cleanroom Filters       | 99.99%<br>EU 13          | Recommended for applications in Cleanroom environments or where the highest filtration efficiency is required.  |
|  Extended Life Filters   | 65%<br>EU 6              | Recommended for soldering applications where heavy volumes of fumes are generated or where operations are running 3 shifts. Filter contains additional filtration media and will last longer.<br><b>**Must be used with Extended Life Pre-Filter.</b> |
|  Adhesive Filters        | N/A                      | Recommended for any bench-top application utilizing adhesives, solvents, or cleaners used in small quantities and not in open containers or "baths".  |



# FUME Filters



## Filter Selection Chart

The following chart is a quick reference guide for PACE Filtration Systems. Simply select your fume extraction central filtration unit and the type of filter you need to identify the part number of the filter. N/A means not available.

(Bold part number indicates standard primary filter in Central Filtration Unit)

|                 | Pre-Filter    | High Capacity Pre-Filter | Economy Filter       | General Purpose Filter | Clean Room Filter | High Capacity Filter | Carbon Filter | Adhesive Filter |
|-----------------|---------------|--------------------------|----------------------|------------------------|-------------------|----------------------|---------------|-----------------|
| Arm-Evac 50     | 8883-0125-P5  | N/A                      | 8883-0300-P5         | <b>8883-0280</b>       | 8883-0290         | N/A                  | N/A           | 8883-0295       |
| FX 50           | N/A           | N/A                      | <b>8883-0200-P5</b>  | N/A                    | N/A               | N/A                  | N/A           | N/A             |
| Turbo Exhauster | N/A           | N/A                      | <b>8883-1311-P10</b> | N/A                    | N/A               | N/A                  | N/A           | N/A             |
| Arm-Evac 105    | 8883-0111-P5  | 8883-0938-P10*           | 8883-0871            | <b>8883-0931</b>       | 8883-0921         | 8883-0936*           | N/A           | 8883-0951       |
| Arm-Evac 200    | 8883-0111-P5  | 8883-0938-P10*           | 8883-0871            | <b>8883-0931</b>       | 8883-0921         | 8883-0936*           | N/A           | 8883-0951       |
| Arm-Evac 250    | 8883-0111-P5  | 8883-0938-P10*           | 8883-0871            | <b>8883-0931</b>       | 8883-0921         | 8883-0936*           | N/A           | 8883-0951       |
| Arm-Evac 500    | 8883-0145-P10 | N/A                      | N/A                  | <b>8883-0955</b>       | 8883-0965         | N/A                  | 8883-0956     | N/A             |
| Arm-Evac 1200   | 8883-0141-P10 | N/A                      | N/A                  | N/A                    | <b>8883-0541</b>  | N/A                  | 8883-0941     | N/A             |
| Lab-Evac 150    | 8883-0120-P5  | N/A                      | N/A                  | N/A                    | <b>8883-0521</b>  | N/A                  | 8883-0975     | 8883-0150       |

\*High Capacity Pre-Filters must be used in combination with a High Capacity Filter.

When filters need to be replaced, simply remove them from the Fume Extractor and replace with a new one.

Disposal of used filters should always be done in compliance with local environmental regulations.



## Fume Extraction Accessories

### ESD Flex-Arm



#### ESD Safe Flex-Arm

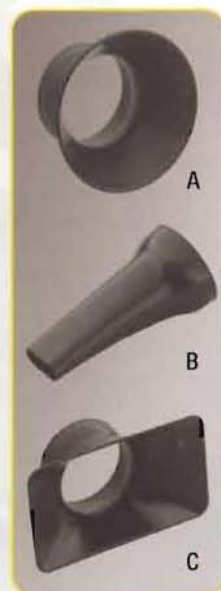
The most versatile and economical collection accessory  
(includes round endpiece)

#### Specifications

|                    |   |
|--------------------|---|
| Part Number:       | 8886-0750   |
| ESD Rating:        | Surface Resistivity: 1.00E3 Ohm<br>Volume Resistivity: <6.00E2 Ohm-cm   |
| Length:            | 915mm (36")   |
| Diameter:          | 75mm (3")   |
| Mounting:          | Directly onto Fume Extractor or<br>uses optional Bench Mounting Bracket |
| Standard Endpiece: | Round   |

#### Optional Endpieces

- A Round Endpiece for omni-directional fume collection  
P/N 8886-0792
  - B Collection Tube Endpiece for focused and pin-point  
fume collection  
P/N 8886-0794
  - C Cowl Endpiece for high volume laminar flow fume extraction  
P/N 8886-0793
- Extension Tube for ESD Flex-Arm 305mm (12") long  
P/N 8886-0790 (not shown)



Quick-Mount Bench  
Mounting Bracket



PACE Fume Extractor shown fitted with 2 ESD Safe  
Flex-Arm Kits

ESD Safe Flex-Arm Quick-Mount Bench Mounting Bracket Kit  
(P/N 8886-0745) allows the ESD Safe Flex-Arm to be mounted  
virtually anywhere. Quick Mount clamp allows for arm and bracket  
to be repositioned in seconds. Kit includes 25m (8') of 75mm (3")  
ESD Safe flexible hose.

ESD Safe Flex-Arm Kit (P/N 8886-0765) contains everything needed  
to mount an ESD Safe Flex-Arm to a workbench. The kit includes:  
(1) ESD Safe Flex-Arm (P/N 8886-0750), (1) Quick-Mount Bench  
Mounting Bracket Kit (P/N 8886-0745).



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# Metal Flex Arms

## Fume Extraction Accessories

### 45mm (1.75") Static-Safe Accessories

#### 45mm (1.75") Static-Safe Metal Flex Arm

P/N 8886-0429

- Conserves benchtop space
- Rugged stainless steel construction, 0.9m (3') long
- Complete with unique Fume Scoop endpiece and Bench Mount Flange



#### Optional Locking Adjustable Air Flow Controller For 45mm (1.75") Metal Flex Arm

P/N 8886-0509



### Optional Mounting Bracket

Bench Mounting Bracket for 45mm (1.75") and 50mm (2") Flex Arm

P/N 8886-0552



### Installation Tips

1. Metal Flex Arms can be mounted directly to the workbench by cutting a hole in the bench top or they can be mounted to the workbench by using the optional Quick-Mount Bench Mounting Bracket, (P/N 8886-0552).
2. To connect the Metal Flex Arm to one 75mm (3") inlet on the fume extractor (P/N 8886-0299), 2.5m (8') of ESD Safe Flexible Hose 5mm (3") diameter with 50mm (2") reducer is required.
3. To connect two Metal Flex Arms to one 75mm (3") inlet, (P/N 8886-0299) 2.5m (8') of ESD Safe Flexible Hose 75mm (3") diameter with 50mm (2") reducer and (P/N 8882-0692) Metal Flex Arm Expansion Kit are required.

### 50mm (2") Static-Safe Accessories

#### 50mm (2") Static-Safe Metal Flex Arm

P/N 8886-0550

- Easy to move in and out of position
- High quality stainless steel construction, 0.9m (3') long
- Variety of endpieces available
- Includes Locking Adjustable Air Flow Controller and Bench Mount Flange



shown with optional fume scoop

### 50mm Endpieces



- A. Static-Safe Fume Scoop for 50mm (2") Metal Flex Arm  
P/N 8886-0530
- B. Stainless Steel Static-Safe 100mm (4") Nozzle For 50mm (2") Metal Flex Arm  
P/N 8889-0318
- C. Stainless Steel Static-Safe 200mm (8") Nozzle for 50mm (2") Metal Flex Arm  
P/N 8889-0328





# Articulated Arms

## Fume Extraction Accessories

### 50mm (2") Static-Safe Accessories

- Joints Lock into position
- 50mm (2") Two-Section Articulated Arm P/N 8886-0158
- Reach: 530mm (21") radius
- 50mm (2") Three-Section Articulated Arm P/N 8886-0155
- Reach: 860mm (34") radius



shown with optional bench mounting bracket and suction hood

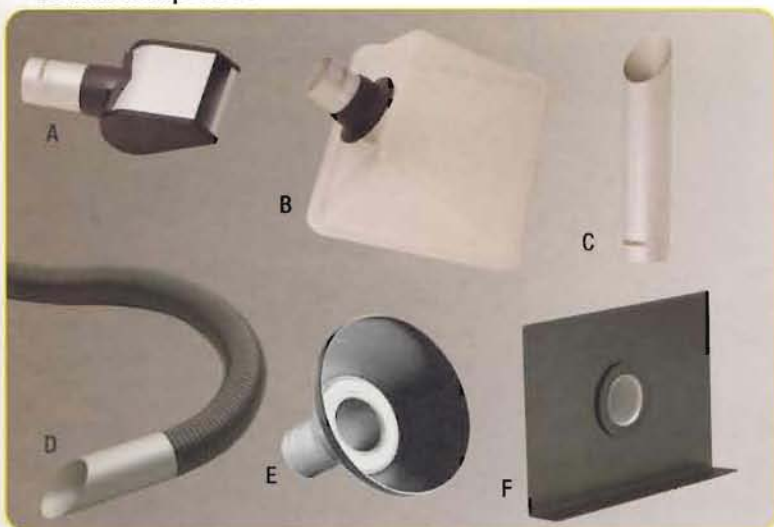
### 65mm (2.5") Static-Safe Accessories

- Joints lock into position
- 65mm (2.5") Two-Section Articulated Arm P/N 8886-0650
- Reach: 685mm (27") radius
- 65mm (2.5") Three-Section Articulated Arm P/N 8886-0652
- Reach: 940mm (37") radius



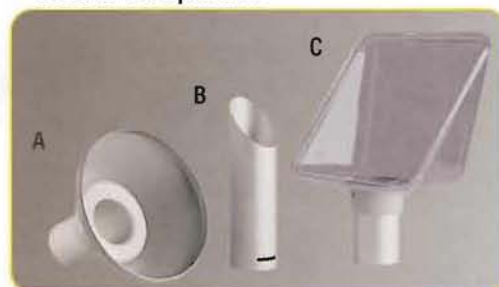
shown with optional bench mounting bracket and canopy

### 50mm Endpieces



- |  |  |
|--|--|
| <p><b>A. Static Safe Nozzles</b></p> <ul style="list-style-type: none"> <li>— 100mm (4") wide, P/N 8886-0315</li> <li>— 200mm (8") wide, P/N 8886-0325 (not shown)</li> <li>— 300mm (12") wide, P/N 8886-0335 (not shown)</li> </ul> <p><b>B. Clear Extraction Canopy</b></p> <ul style="list-style-type: none"> <li>— 296mm x 248mm (11.6" x 9.75") P/N 8886-0345</li> </ul> <p><b>C. Static-Safe Suction Tube</b></p> <ul style="list-style-type: none"> <li>— 210mm (8.25") long P/N 8886-1511</li> </ul> | <p><b>D. Fume Snorkel</b></p> <ul style="list-style-type: none"> <li>— 50mm (2") diameter, 460mm (18") long P/N 8886-0340</li> </ul> <p><b>E. Static Safe Suction Hood</b></p> <ul style="list-style-type: none"> <li>— 200mm (8") diameter P/N 8886-0351</li> </ul> <p><b>F. Laminar Flow Endpiece</b></p> <ul style="list-style-type: none"> <li>— 300mm x 200mm (11.8" x 7.8") P/N 8886-0310</li> </ul> |
|--|--|

### 65mm Endpieces



- A. Static-Safe Suction Hood P/N 8886-0658**
- 200mm (8") diameter
- B. Static-Safe Suction Tube P/N 8886-0660**
- 210mm (8.25") long
- C. Clear Extraction Canopy P/N 8886-0660**
- 254mm x 406mm (10"x16")

### Optional Mounting Brackets

- Bench Mounting Bracket for 65mm (2.5") Articulated Arm P/N 8886-0662
- Bench Mounting Bracket for 50mm (2") Articulated Arm P/N 8886-1121



# FumeFlo™ Worktable and Plenum

## FumeFlo Worktable Features

The FumeFlo Worktable is the newest innovation in fume collection devices. By combining laminar flow and downdraft containment, the FumeFlo Worktable offers the maximum level of protection from hazardous fumes. Featuring a fully adjustable airflow controller, the operator can adjust the ratio of laminar flow to downdraft capture. The worktable is easy to install and relocate, is ESD Safe, and preserves precious workbench space. The FumeFlo Worktable comes with 2.5m (8') of 75mm (3") ESD Safe Flex Hose for easy connection to the Arm-Evac 105, 200, 250 or 500.

## FumeFlo Worktable Specifications

|             |  |
|-------------|--|
| Unit:       | FumeFlo Worktable<br>P/N 8886-0200                           |
| Dimensions: | 170mm H x 450mm W x 590mm D<br>(6.75" H x 18.0" W x 23.5" D) |
| Weight:     | 6 Kg (13 pounds)   |
| Options:    | Shelf (provides storage space)<br>P/N 8886-0205              |
| Filters:    | Carbon Impregnated Foam<br>P/N 8883-0225-P5                  |



FumeFlo Worktable shown with optional equipment shelf



AirFlow Controller



## FumeFlo™ Worktable and Plenum



Application shown with 100% Laminar Flow capture



Application shown with 100% Down Draft capture



### Metal Plenum Features

The Plenum is ideal for providing fume extraction to work spaces where soldering is being performed over a large area, such as at several locations on a large PCB. At 455mm (18") wide laminar airflow is supplied over the entire work area, protecting the operator from exposure to harmful fumes. The Plenum also preserves bench-top space as it provides a sturdy shelf. The Plenum is constructed from rugged 18 gauge steel, is static-safe, and includes 2.5m (8') of 75mm (3") ESD Safe Flexible Hose for easy connection to the Arm-Evac 105, 200, 250 or 500.

### Metal Plenum Specifications

|             |  |
|-------------|--|
| Unit        | Static-Safe Metal Plenum<br>P/N 8886-0366            |
| Dimensions: | 130mm H x 460mm W x 130mm D<br>(5" H x 18" W x 5" D) |
| Weight:     | 2.7 Kg (6 pounds)                                    |
| Material:   | 18 gauge steel                                       |
| Inlet:      | One 75mm (3") inlet                                  |



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### Configurations Examples 1-7 shown with the following:

1 Arm-Evac 105 (P/N 8886-0110 / 8888-0105) or Arm-Evac 200 (P/N 8889-0205 / 8889-0200)  
or Arm-Evac 250 (P/N 8889-0255 / 8889-0250) plus listed items.

#1



- 2 75mm (3") ESD Safe Flex Arms  
- includes round piece  
(P/N 8886-0750)
- 1 Cowl Endpiece  
(P/N 8886-0793)

#2



- 2 ESD Safe Flex Arm Kits  
- refer to page 11 for  
kit contents  
(P/N 8886-0765)
- 1 Cowl Endpiece  
(P/N 8886-0793)

#3



- 2 50mm (2") Metal Flex Arms  
(P/N 8886-0550)
- 1 50mm (2") Fume Scoop  
(P/N 8886-0530)
- 1 50mm (2") Static-Safe  
100mm (4") Nozzle  
(P/N 8889-0318)
- 2 Bench Mounting Brackets  
(P/N 8886-0552)
- 2 2.5m (8') of 75mm (3") Flex Hose  
with 75mm (3") to 50mm (2")  
Reducer (P/N 8886-0299)

#4



- 2 Metal Plenums  
(P/N 8886-0366) includes  
2.5m (8') of 75mm (3") Flex Hose

#5



- 1 50mm (2") Metal Flex Arm  
(P/N 8886-0550)
- 1 50mm (2") Fume Scoop  
(P/N 8886-0530)
- 1 Bench Mounting Bracket  
(P/N 8886-0552)
- 1 2.5m (8') of 75mm (3") Flex Hose  
with 75mm (3") to 50mm (2")  
Reducer (P/N 8886-0299)
- 1 Metal Plenum (P/N 8886-0366) includes  
2.5m (8') of 75mm (3") Flex Hose

#6



- 2 45mm (1.75") Metal Flex Arms  
P/N 8886-0429)
- 2 Bench Mount Brackets  
(P/N 8886-0552)
- 2 2.5m (8') of 75mm (3") Flex Hose  
with 75mm (3") to 50mm (2")  
Reducer (P/N 8886-0299)

#7



- 1 45mm (1.75") Metal Flex Arm  
(P/N 8886-0429)
- 1 50mm (2") Three Section Articulated Arm  
(P/N 8886-0155)
- 1 200mm (8") Fume Snorkel  
(P/N 8886-0340)
- 1 Bench Mounting Brackets for 45mm  
(1.75") Metal Flex Arm (P/N 8886-0552)
- 1 Bench Mounting Bracket for 50mm (3")  
Three Section Articulated Arm  
(P/N 8886-1121)
- 2 2.5m (8') of 75mm (3") Flex Hose  
with 75mm (3") to 50mm (2")  
Reducer (P/N 8886-0299)

#8



- 1 Arm-Evac 50 (P/N 8889-0050)
- 1 Dual Arm Attachment (P/N 8886-0055)



## **A Worldwide Commitment**

With offices worldwide, PACE, Inc. is a recognized world leader in the development of solutions for the assembly and repair of highly advanced electronics. Our expertise extends back to the dawn of the modern electronics industry. In 1958, PACE introduced training programs for the repair of the printed wire assemblies, and soon after, revolutionized the industry by creating the first self-contained vacuum desoldering system.

Today, PACE continues to provide innovative solutions, products and training for the rework, repair and testing of printed circuit assemblies. Our unique capabilities and evolving vision have provided universal solutions to thru-hole and surface mount assembly and rework problems for the most advanced electronics.

Additionally, PACE manufactures Fume Extraction systems to reduce exposure to harmful particulates and gases created from hand soldering operations. PACE Fume Extraction systems effectively remove these contaminants from the worker's breathing zone thereby reducing or eliminating health risks.

Our strong commitment and history of achievement has resulted in an unparalleled range of Assembly, Repair and Fume Extraction solutions to meet your needs whether working to ISO-9000, industrial, military or your own internal specifications. Whatever the challenge, PACE stands ready to set a new standard for you.

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