



ARM-EVAC® 50

Benchtop Plenum/Arm Extractor

MANUAL NO. 8881-0980

REV. B

TABLE OF CONTENTS

Safety	3
Introduction	4
Specification.	4
Features	5
Set-Up.....	6
Operation.....	7
Maintenance	7
Troubleshooting.....	8
Filter Replacement & Spare Parts.....	8
Warranty.....	9
Equipment Registration Form	10

WARNING

Read the safety & set-up information sections in this manual thoroughly **before** installing and using your fume extraction system.

Safety

PACE Fume Extraction systems are designed to reduce the level of harmful contaminants from the work environment and to assist in the achievement of recommended health and safety requirements for local exhaust ventilation and contaminant removal. Be sure to follow all safety guidelines contained herein and precautions contained in other relevant product safety literature (i.e., Material Safety Data Sheets) provided with the substances and equipment producing the fumes to be extracted.

Disclaimer

PACE hereby disclaims all responsibility for any personal injury, property damage, fine, citation or penalty imposed by any government or private entity which results from any use, misuse or misapplication of this product, failure of the user to regularly maintain the product according to the recommended guidelines, or failure to adequately monitor fume extraction exhaust air and the ambient workplace air for the presence of harmful levels of gases, fumes and particulates.

Compliance with all applicable environmental and personal safety regulations is the sole responsibility of the user and adequate self-monitoring of exhaust air released into the atmosphere or the workplace as well as monitoring of the ambient workplace air is strongly recommended. To insure continued effective performance, the following guidelines must be followed.

Dangers

1. PACE Fume Extractors are not intended to be used as a substitute for devices such as personal protective respirators which are designed to remove poorly adsorbed substances including carbon monoxide, methane, hydrogen, acetylene and other gases. Risk of serious injury or death, fire or explosion may result from improper use. If in doubt, contact your industrial hygienist or PACE.
2. Never use PACE Fume Extraction Systems to extract fumes from highly flammable liquids and gases such as Ether, Gasoline (Petrol) and others. Risk of serious injury, death, fire or explosion may result.
3. High concentrations or airborne contaminants such as Methyl Ethyl Ketone, Cyclohexone, Ozone and others when contacted with activated carbon, can undergo oxidation, decomposition or polymerization resulting in exothermic reactions or heat generation. PACE Fume Extraction Systems must not be used to extract fumes from these substances when high concentrations are present.
4. Failure to comply with the application and maintenance guidelines, filter replacement schedules, monitoring recommendations and safety guidelines contained herein and in other relevant product safety literature (i.e., Material Safety Data Sheets) provided with the substances and equipment producing the fumes to be extracted could result in risk of serious injury, fire or explosion.

Introduction

Solder Fume removal when hand soldering is an often-overlooked work place hazard. Medical research has confirmed that there is an increase incidence of occupational asthma, chronic bronchitis, allergic reactions and other health related effects associated with exposure to solder/flux fumes in the electronics industry.

The Arm-Evac 50 is a self-contained, compact and portable Benchtop filtering fume removal system. The Arm-Evac 50 has Airflow Control and Filter Condition Monitoring to alert the operator when it is time to change the filter and incorporates a high performance 24vDC brush less/ maintenance free motor for years of trouble free use. The Arm-Evac 50 has been designed to take up a minimum of bench space and incorporates a utility platform to stack soldering irons and hand tools etc.

As standard the Arm-Evac 50 operates as a Self-Contained Plenum. The plenum type extraction provides fume removal for a wide capture area. Should the fume capture require a more localized extraction, the Arm-Evac 50 can be configured to offer Arm-Extraction via an optional accessory. The fumes are drawn from the point of origin through the Static-Safe system, filtered and returned to the work environment as clean air.

In addition to offering two types of fume collection from a single unit, the Arm-Evac 50 also offers four levels of Fume Filtration, 1) A General Purpose Filter for normal Soldering applications, 2) A Clean room Filter for use in clean room environments and 3) An Adhesive Filter for removing fumes produced from light gluing applications and 4) An Economy Foam filter for larger applications such as sanding, Benchtop machining & grinding.

Specifications

Arm-Evac 50 System Part Number	8889-0050
System voltage	120/230 VAC, 50/60Hz
Flow Rate	90cfm with std filter @ max motor speed 45cfm with one Arm open 30cfm with both Arms open
Noise Level	54.5dbA at 2 meters
Weight	6kg (13lbs)
Size H x W x D	250 x 330 x 315mm (8.5" x 13" x 12.5")
Housing	Steel chassis with ABS shell (static safe)
Filter Monitoring	LED display

Features

Arm-Evac 50 Benchtop Plenum/Arm Extractor

1. Airflow Control Switch
2. Filter Condition Monitoring LED
3. Filter Access Cover
4. Power receptacle / On-Off Switch
5. Utility Platform
6. Arms & adaptor (optional)



Fig 1: Arm-Evac 50 Benchtop Plenum/Arm Extractor

Set up

1. The Arm-Evac 50 has been designed for ease of use and maximum installation flexibility in mind. The major considerations for placement of the unit are:

Exhaust Port: This is located at the rear of the unit. When positioning the unit, make sure that the exhaust port is not blocked or that airflow from the exhaust port is not restricted in any way.

Proximity to work area: The unit should be placed as close to the work area as possible. Do not create any sharp bends in the flexible Extraction Arms (optional), as this will reduce airflow.

2. The Arm-Evac 50 will plug into a standard 110v or 230v electrical outlet. A line cord is provided with each system.
3. The Arm-Evac 50 is fitted with Filter Condition Monitoring (LED). As the system filter(s) collect particulates, the LED will illuminate in the following sequence: During normal operation, the LED will illuminate Green. As the airflow rate decreases (as the filter(s) start to become clogged), the LED will illuminate Amber and finally to Red when the filter(s) are fully blocked. The Filter(s) **MUST** be replaced when the LED illuminates Red. (NOTE: When the Airflow Control Switch is set in its lowest position, the Green LED will flash to alert the user that the unit is in operation).
4. Before operating the unit, make sure the filters are correctly positioned. The Pre-Filter should always be positioned towards the front of the unit.



Fig 2. Arm-Evac 50 set up for Plenum Extraction (supplied as standard)



Fig 3. Arm-Evac 50 set up for optional Extraction Arms.

Plenum Operation

1. Remove Arm-Evac 50 from packaging and place on workbench.
2. Insert filter, ensuring that you follow airflow guide.
3. Plug power cord (supplied) into receptacle at rear of unit, ensuring that it is connected to a properly grounded outlet.
4. The unit is now ready for use.

Optional Arm Extraction Operation

1. Ensure Arm-Evac 50 is switched off and is disconnected from power outlet.
2. Lift Arm-Evac unit and slot Plenum opening into locating grooves on Arm Adaptor
3. Push fit Extraction Arm(s) into outlet(s) on Arm Adaptor. If only one Extraction Arm is required, use Blanking Plug supplied to block other outlet.
4. Position Extraction Arm(s) as required.
5. Follow steps 1, 2 & 3 of Plenum Operation
6. The unit is now ready for use.

Maintenance

Fuses: The fuse is located in a sliding tray at the rear of the unit, just below the power receptacle. Each Arm-Evac is supplied with one replacement fuse, also located in the sliding tray.

Replacement fuses are available for the Arm-Evac 50 systems in packages of 5 fuses.
5a fuse, part number 8884-9965-P5

Fan Assy: The Arm-Evac 50 is fitted with a maintenance free, brush-less fan assembly, which does not require routine maintenance. It is important that fume extractor filters are changed on a regular basis to protect the fan assembly.

Housing: The housing of the Arm-Evac 50 is manufactured from a static safe ABS material, which may require routine cleaning to remove any build up of particulates and flux fume residue. We recommend the use of a mild, plastic safe cleaner with a soft cloth to clean the unit, should it be required.

A vent is located at the rear of the unit to allow the cleaned air to return to the workplace. Do not cover this vent as this may cause damage to the fan assembly.

Never operate the Arm-Evac 50 without filters installed.

Troubleshooting

Symptom	Possible Cause	Solution
System does not power up	No power supplied to unit	Check power cord Is connected and power Is switched on.
Reduced Airflow	Filter blocked, Optional Arm attachment not installed correctly	Check & change filter(s) if req, check Arm attachment connection.

If the unit does not work after checking the above, please contact PACE, or your Authorized PACE Distributor if outside U.S.

Filter Replacement & Spare Parts

PACE Fume Extraction Systems are equipped with filters designed to capture particulates and noxious gases and odors that are present in the air being filtered. Over time, the filters will become clogged, impeding airflow through the system and the capacity of the gas filter (if fitted) will be reached, reducing its ability to continue to neutralize and adsorb noxious gases and odors.

Do not attempt to clean any PACE fume extraction filters for reuse. Cleaning the filters will severely damage the filter media and, consequently, the filter's performance. This will result in unfiltered, contaminated air being returned to the working environment. Unfiltered air can also damage the fan assembly.

To ensure the highest level of performance, use only PACE replacement filters in your PACE Fume Extraction System.

BE SURE the new filter cartridge is installed with the airflow arrow pointing downward.

When disposing of used filters, extreme care must be taken to comply with *all* applicable environmental regulations. Carefully consult the MSDS supplied with the material(s) producing the fume. If in doubt, check with your local Environmental Authority.

PART NUMBER DESCRIPTION

8889-0050	ARM-EVAC 50 (DUAL VOLTAGE)
8883-0125-P5	ARM-EVAC 50 PRE-FILTER PKT 5
8883-0280	ARM-EVAC 50 STANDARD FILTER (85%)
8883-0290	ARM-EVAC 50 CLEAN ROOM FILTER (99%)
8883-0295	ARM-EVAC 50 ADHESIVE FILTER
8883-0300-P5	ARM-EVAC 50 FOAM FILTER PKT 5
8886-0055	ARM-EVAC 50 ARM ADAPTOR & ARMS (2)

Warranty

Seller warrants to the first user that products manufactured by it and supplied hereunder are free of defects in materials and workmanship for a period of three (3) years from the date of receipt by such user. This Warranty as applied to blowers and motor pumps is limited to a period of one (1) year. Monitors, computers and other brand equipment supplied by not manufactured by PACE are covered by their respective manufacturer's warranty in lieu of this Warranty.

This warranty does not cover wear and tear under normal use, repair or replacement required as a result of misuse, improper application, mishandling or improper storage. Consumable items such as tips, heaters, filters, etc. which wear out under normal use are excluded. Failure to perform recommended routine maintenance, alterations or repairs made other than in accordance with Seller's directions, or removal or alteration of identification markings in any way will void this warranty. This warranty is available only to the first user, but the exclusions and limitations herein apply to all persons and entities.

SELLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Seller will, at its option, repair or replace any defective products at its facility or other location approved by it at no charge to user, or provide parts without charge for installation by the user in

the field at user's expense and risk. User will be responsible for all costs of shipping equipment to Seller or other location for warranty service.

EXCEPT FOR THE REMEDY ABOVE DESCRIBED, UNLESS OTHERWISE REQUIRED BY APPLICABLE LAW, SELLER WILL HAVE NO OTHER OBLIGATION WITH REGARD TO ANY BREACH OF WARRANTY OR OTHER CLAIM WITH RESPECT TO THE PRODUCTS, OR LIABILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL LOSS OR DAMAGE CAUSED BY OR OCCURRING IN CONNECTION WITH ANY OF THE PRODUCTS.

Warranty service may be obtained by contacting the appropriate PACE Company or local Authorized PACE distributor as set forth below to determine if return of any item is required, or if repairs can be made by the user in the field.

Defective products may not be returned to PACE without a Service Authorization ("SA") Number. Any warranty or other claim with respect to the products must be made in writing delivered to PACE (or local Authorized PACE distributor for Buyers outside the USA and the United Kingdom) within a reasonable time of the expiration date of this warranty with sufficient evidence of purchase and date of receipt, otherwise user's rights under this warranty shall be deemed waived.



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