

# Mob-EX



## Mobile Explosion Proof Dust Control Units for ATEX Ex II 2 G/D Hazardous Areas



**Arc Technologies**

Worldwide Technology For Controlled Environments

Web site: [www.arctechnologies.co.uk](http://www.arctechnologies.co.uk)

email: [achambers@arctechnologies.co.uk](mailto:achambers@arctechnologies.co.uk)

Tel: **+(44)0115 928 1508**

## Introduction

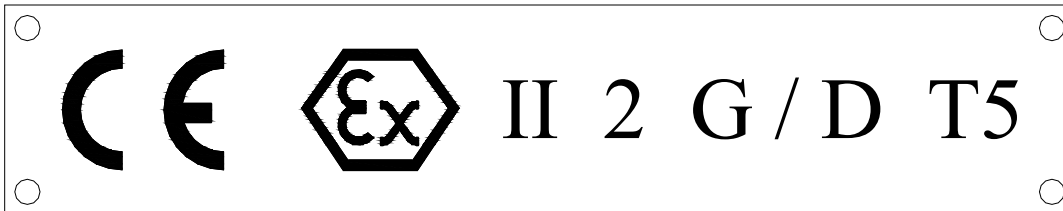
ARC Technologies mechanical filtration units are rugged construction and intended for continuous operation in heavy industries.

ARC Technologies have provided Mob-EX filter units for the following Applications:

Fabrication, Plastics, Powder, Chemical, Pharmaceutical, Foundries, Food processing, Engineering and Education.

If the directives mentioned in this manual are followed, the units will work to your full satisfaction year by year.

If you have purchased the ATEX Approved model the following category applies as per ATEX Directive 94/9/EC (also known as ATEX 95 or ATEX 100A) and CE Marking Directive:



### Classification of Equipment

CE – Mark indicates the unit can be sold in the (EU) European Union.

Ex – Mark indicates the unit has been designed for an explosive atmosphere.

Equipment is divided into two groups (I for mining and II for surface industries). As the Legend above shows the unit is designed for surface industries, this is then divided into categories 1, 2 and 3 for all other industries. Category 2 is intended for the design of equipment with a high level of safety that will be used where explosive atmospheres are likely to occur, but are not present continuously or for lengthy periods.

G / D – Indicates the unit is designed for gas and dusts, a list of the gases and dusts that the unit is compatible with in accordance with BS EN 50014:1998 Electrical apparatus for potentially explosive atmospheres (general requirements) is available from ARC Technologies upon request.

T5 – Indicates the maximum surface temperature that the unit should not exceed, T5 = 100°C.

ARC Technologies only offers the Mob-EX as use for Extraction in Explosive environments for surface industries. (i.e. Group II)



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## Units Fitted with Optional Arm

Figure 1 (opposite) shows the degrees of movement, which can be obtained to ensure a comfortable working environment for the user. The Arm should only be opened away from the unit when it is intended for use. At all other times i.e. transporting, or at the end of a shift the arm should be closed up.

Figure 1 (opposite) also shows the earthing points for the arm. The arm is earthed at the joints though the wire strip in the flexible conduit. It is important to check the condition of the earthing point on a 12 monthly basis. See Section 7 Routine Inspection.

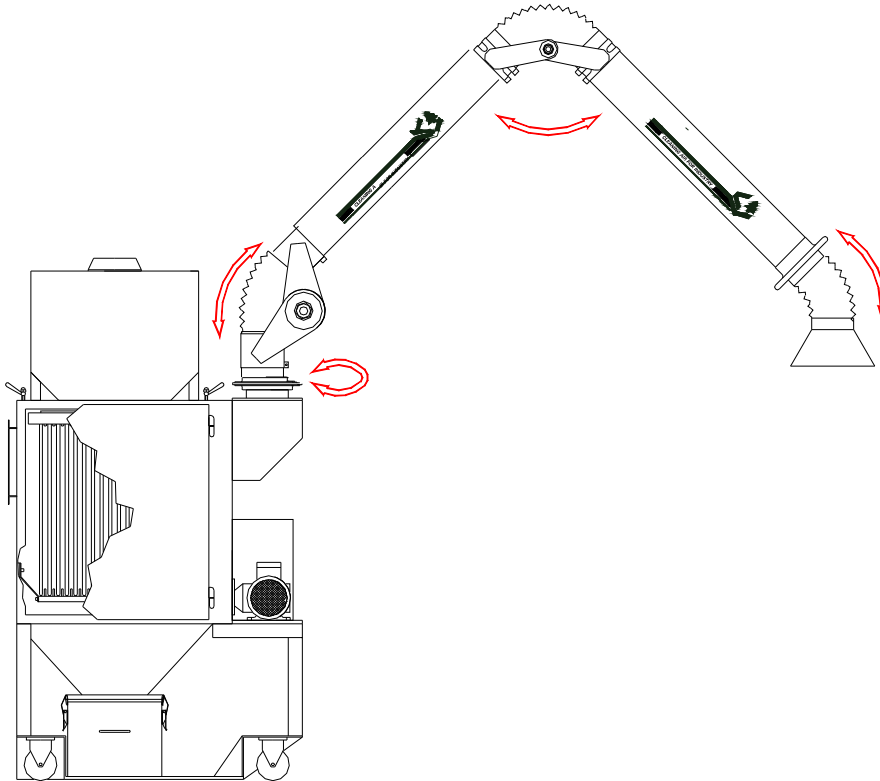


Figure 1. Units Fitted with Optional Arm



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## Dust Disposal



Approximately every four hours, depending on dust type and volume, the filter assembly should be cleaned. On all collectors, fans or blowers should be allowed to run down before cleaning mechanism operation, otherwise dust penetration of the filter cloth can occur, necessitating filter removal and special cleaning by hand.

Before restarting the collector, the dust container, if fitted, should be checked for dust quantity and emptied if necessary.



*For safe handling of the dust container an assessment must be made to satisfy the requirements of the European Directive 90/269/EEC on manual handling.*

### *Dust container with bin balancing pipe:*

- 4.1 Isolate the power to the unit & Ensure all motors have stopped turning
- 4.2 Wait a further 2-3 Minutes to allow any air borne dust inside the unit to settle
- 4.3 Release the dust container by undoing the two yellow toggle fasteners located at the sides of the container and slide it out.
- 4.4 The polythene bag liner can be sealed in a manner to suit the toxicity of the dust and then removed.
- 4.5 Whilst the bin is empty check the condition of the bin earth strap, which is located inside the bin balancing pipe
- 4.6 Fit a new polythene bag into the dust container and slide the container back to the locating stops.
- 4.7 Reseal the container by fastening the toggle clips.

If in doubt regarding the safe disposal of the used bag, consult your Environmental Health Officer.



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## Filter Removal / Changing Procedure / Manual Cleaning

Before attempting to change or clean the filter, ARC Technologies recommend that the correct Personal Protective Clothing be worn i.e.

- 5.1.1 Full overalls, or disposable overalls.
- 5.1.2. Face Mask, to eliminate the risk of breathing dangerous dust particles.
- 5.1.3. Gloves.
- 5.1.4. Safety Boots.

It is advisable to remove the unit into a safe area, safely away from any zones before starting please read the procedures below in conjunction with Figure 2 shown on next page:

- 5.2.1. Complete procedure for bin emptying as in sections 4.1 to 4.7
- 5.2.2. Ensure Fan and Shaker motors have stopped turning.
- 5.2.3. Open filter access door.
- 5.2.4. Release the filter sealing handles, (this will lower the filter).
- 5.2.5. Slide the filter element out from the filter housing.
- 5.2.6. Insert the new filter element into the filter housing, taking care not to damage the filter pockets on the shaker bar.
- 5.2.7. Position each pocket into its own slot on the shaker bar. (Do not force bag into slots, align each pocket individually)
- 5.2.8. Tighten the chrome lifting handles to raise the filter element, ensuring that a seal is formed around the top of the filter.
- 5.2.9. Replace the filter access door.
- 5.2.10 Manual Filter Cleaning  
When the used filter has been removed from the housing it is possible to clean it using an industrial vacuum cleaner. Taking care not to rip the media, use a crevice tool to hand vacuum the dirty side only



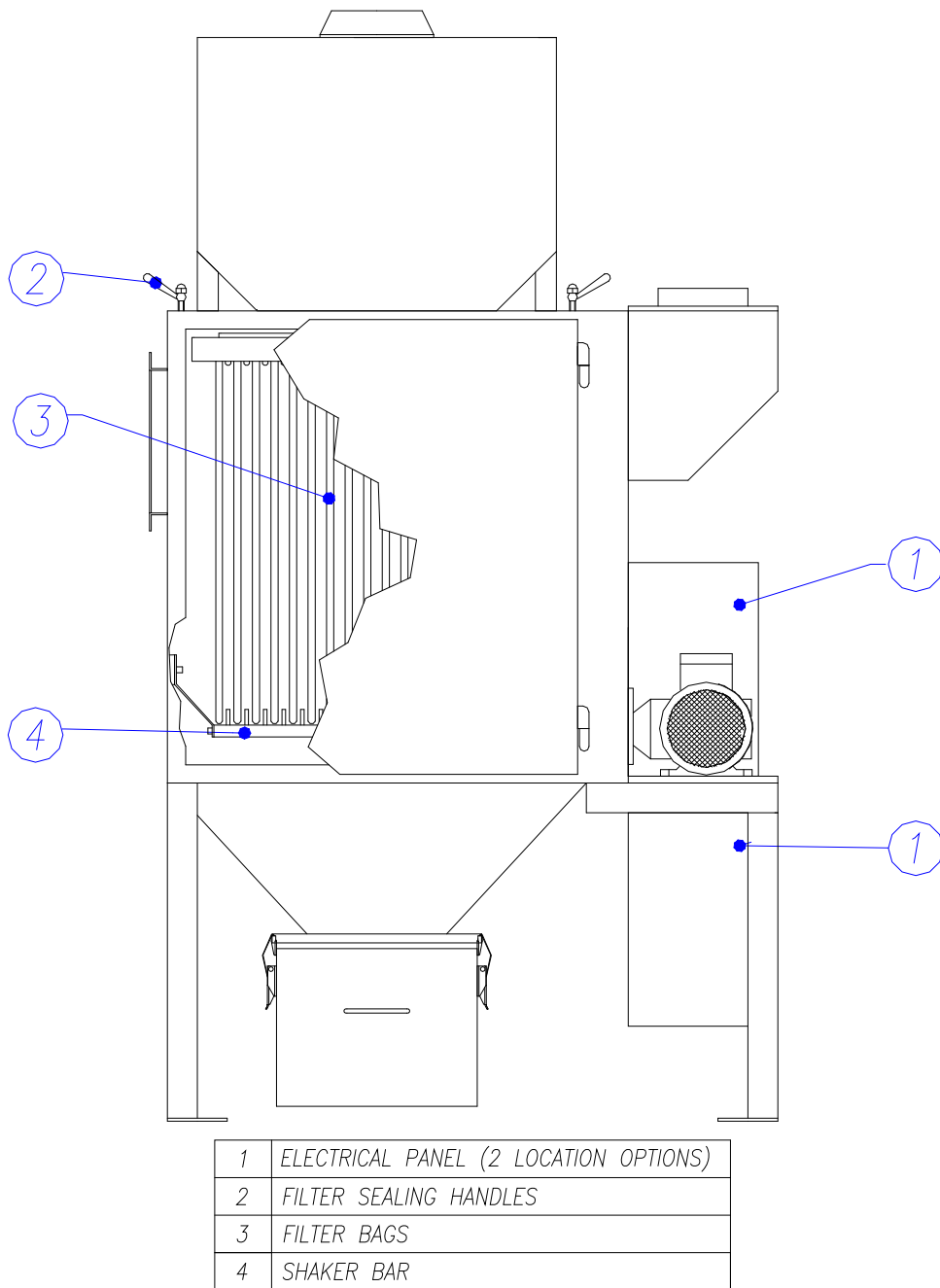
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**Figure 2 Filter Changing Instructions**



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