Safelab Systems Ltd

Airone Building
8 Beaufighter Road
Weston Super Mare BS24 8EE
Tel: +44 (0) 1934 421 340
E-mail address: service@safelab.co.uk
www.safelab.co.uk

Safelab Scope of Works – Routine Testing of (Filtered) Forensic Evidence Cabinet

The routine testing of a filtered forensic (evidence) cabinet enables you to comply with the requirements of COSHH Regulation Nine which stipulates that this type of equipment should be tested as least once every fourteen months by a competent person.

There is no dedicated standard covering filtered forensic cabinets so typically, as a guideline, routine testing is performed in line with:

- BS 7989:2001 Specification for recirculatory filtration fume cupboards
- COSHH REG 9 Control of substances hazardous to health
- HSG 258 Controlling airborne contaminates

  Note: Standards may reference BS EN 14175

Prior to Safelab carrying out any work the equipment must be fully decontaminated using a process that eliminates the risk of any blood-borne pathogens being present. Only if a formalin / formaldehyde vapour or similar recognised and certified process has taken place, will Safelab change any internal parts, pre-filters or filters. If this process has not taken place, Safelab will only undertake this work with our preferred 3rd party specialist decontamination company present. The cabinet should also be empty of evidence so that testing can be performed.

Safelab's routine testing includes:

A review by the engineer of (where available):

- System commissioning report
- User manual
- Logbook
- Previous statutory report / service card
- Confirm no changes to unit, system or process since last test

The engineer will check and advise on possible containment interference factors such as:

- AHU
- Doors and windows
- Busy thoroughfares
- Equipment in unit
- Operator / process

The engineer will perform a visible inspection and check operation of unit including the following (where applicable)**:**

- Pre-filter: Inspect and replace where required (from customer stock or if supplied by engieer an additional fee will apply)
- Hinges and sash stop mechanism
- Baffles and baffle fixings
- Sash and sash guides
- Glazing and panels: Seating, sealing and damage inspection
- Worktops: Seating and damage inspection
- Fan control
- Control panel operation / display
- Reset service counter
- Sash high alarm
- Low airflow alarm
- Pressure gauge
- Light

The engineer will check operation and condition of services (where fitted)

- Water, Waste, traps and pipe-work

Registered No: 5336826 England and Wales
Registered Office: Airone Building, 8 Beaufighter Road, Weston Super Mare BS24 8EE

DOCUMENT NO: F166 ISSUE NO: 04 CREATED: 14/07/2023

The engineer will perform qualitative and quantitative airflow assessments

- Airflow measurements (Face velocity tests) see notes below*
  Please note that the routine testing quoted by Safelab excludes a visual process capture check through the use of smoke tubes (see notes below**) unless the results of the airflow measurements (as above) give reason for the engineer to perform this additional check – in this scenario there is no additional charge for the smoke test.

The engineer will perform a filter seating & integrity challenge comprising (where relevant):

- Carbon filter challenge see notes below***
- HEPA filter challenge (if present) see notes below****

A full written report, for each piece of equipment tested, will be produced by the engineer which records the results of the tests and checks performed. A copy will be e-mailed to the e-mail address provided by the point of contact or a copy of the report can be requested from Safelab by e-mailing: service@safelab.co.uk
The forensic cabinet's service record card will be updated following the thorough test and examination.

Testing protocol details:

*** Airflow testing** (Face velocity)
Using a calibrated vane anemometer a number (depending on unit type and size) of airflow readings are measured across the unit's face. These measurements are recorded and averaged to provide a quantitative performance result. The required results vary depending on the type of unit and the application.

**** Smoke capture test (where applicable)**
Smoke capture tests provide qualitative support to the quantitative face velocity tests. Where the operational environment allows a small controlled source of smoke is introduced to the LEV. The smoke capture is visually observed and where applicable a capture distance is measured. The capture distance is relevant on capturing and receiving hoods as well as arms. Due to the enclosed design of a fume cupboard capture distance is not required. In this case the smoke test offers visual confirmation of satisfactory containment and air movement around the face.

***** Filter seating & integrity challenge** (carbon filter):
A calibrated monitor fitted with a Figaro sensor is placed in the exhaust airflow of the unit. An IPA based spray is introduced to the cabinet intake airflow whilst the unit is running. The monitor will alert the engineer to any level of the substance reaching the sensor. This sensor is similar to the one used as part of the built in saturation alarm safety feature on many Safelab units. Activated carbon filters come in many forms and handle a great number of chemicals. Our testing protocol gives a general indication to the condition of the filter as well as confirmation that it is seated and sealed satisfactorily (particularly important after filter replacement). We take into account the usage of the cupboard as well as the processes conducted within to offer the right advice regarding replacement and suitability of the filters. More specific ongoing testing can be carried by end users utilising Draeger or Gastec systems at regular intervals between Safelab's routine examination and test visits. These systems allow for the specific testing of a chosen substance.

****** Filter seating & integrity challenge** (HEPA filter)**:**
The purpose of HEPA filters is to remove at least 99.97% of airborne particles 0.3 micrometers (µm) in diameter. HEPA filters are used in various applications for the protection of end users and product. It is important to note that HEPA filters are designed to arrest very fine particles effectively, but they do not filter out gasses and odour molecules. For this the use of an activated carbon filter instead of or in addition to a HEPA filter is recommended. (See BS EN 12469:2000 for DOP filter and seal integrity).

A DOP (Dispersed Oil Particulate) test is conducted to detect leaks in HEPA (high efficiency particulate air) filters in their operational conditions. The test is designed to test the filter, seals and housing. In addition to testing the filter integrity it ensures that all air entering the controlled environment passes through the HEPA filtration system.

In this test a generator is used to create an aerosol which is dispersed upstream of the filter. The downstream face and seals of the filter are scanned for leaks using a calibrated photometer. It is important to note that smoke detectors in the location will need to be isolated prior to the work commencing. Please note: Safelab does not undertake particle counting.

Terms and Conditions
The purchaser is deemed to accept Safelabs' standard terms and conditions which are readily accessible on our website (www.safelab.co.uk/standard_terms_conditions.htm)

Excluded from Quote (unless otherwise stated)
Replacement pre and main filters
Consumable items such as internal lights
Cleaning or de-contamination (unless quoted)
PAT Testing / Particle count
Any additional items or works not specified
Any remedial work identified at time of test will be quoted for separately

Important information:

The supply of replacement pre-filters for filtration fume cupboards:

Safelab supply a wide range of replacement pre-filters for all makes and model of filtration fume cupboards.

As part of the routine testing we perform (see attached scope of works documentation) or where we are performing the installation of replacement main filter(s) for a filtration fume cupboard Safelab's engineer will replace the existing pre-filter (white cloth "blanket") with a new pre-filter. There are several important reasons for changing the pre-filter.

1) The pre-filter, as it blocks, can cause a drop in the fume cupboard's airflows.

2) The pre-filter provides protection of the main filter by capturing dust which might clog the surface of the main filter as the unit's airflow passes from the working area out through the main filter to be recirculated (as clean air) back into the room.

3) Replacing the pre-filter on a regular basis can extend the life expectancy of the main filter. (For Safelab manufactured fume cupboards please refer to the appropriate operating manual – copies available on request).

This quotation from Safelab includes the supply of either:

1) A pack/or packs of replacement pre-filters (despatched from our factory).

2) The relevant number of individual replacement pre-filters to fit the fume cupboards on site (to be supplied from the attending engineer's van stock).

Once an order is placed and the work is completed Safelab will invoice for the supply of replacement pre-filters as quoted.

If you have replacement pre-filters available on site and do not wish to order more please either:

1) Place an order excluding the value of the pre-filters.

2) Contact the person who has generated this quotation so that the quote can be amended to remove the supply of the (quoted) pre-filters and the quotation can be re-submitted for consideration.

We are keen to avoid invoicing for the supply of pre-filters from the engineer's van stock if you have pre-filters readily available from your own stock held on site. If you order the quoted pre-filters they will be supplied and either fitted or left on site for future use.

Thank you.