



**JBC**

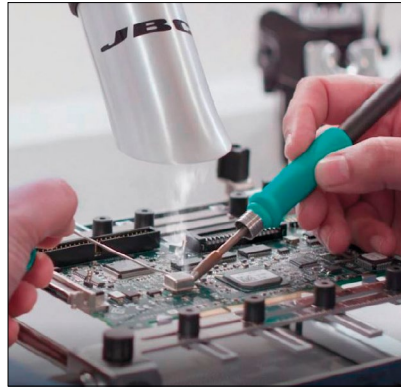
The Soldering Co.

## **Fume Extractor**

A healthy workplace is our priority



Most efficient solution. FAE only operates when soldering and features a unique vacuum system integrated into the stand.



#### Suction in use

Fume Extractor **starts up when the tool is lifted from the stand.** This function saves power and extends filter life.



#### Suction in the stand

JBC Fume Extractor has an integrated vacuum system that detects **when the tool is returned to the stand and** automatically absorbs excess of fumes.

### 3 working modes

#### Station

The valve in the working area opens when the tool is lifted from the stand. Once the tool is returned to the stand and goes to Sleep Mode, the valve in the work area closes and the stand valve opens.

#### Pedal

You can activate the vacuum system with the pedal without a connection to a JBC Station.

#### Continuous Mode

When activated, the four aspiration intakes are opened and Fume Extractor suction is operating.

## Intelligent control when connected to JBC Stations

**2 separate aspiration inlets** can be used simultaneously on two workbenches.

**4 levels of aspiration** depending on requirements: low, medium, high & customized.

**Auto-control of the airflow** depending on the number of aspiration tubes in use and filter saturation.

#### workbench 1

Flexible arm suction tube or Stand suction tube (up to 4 stands)

#### workbench 2

Flexible arm suction tube or Stand suction tube (up to 4 stands)



#### Process Screen

Set up and control the equipment through an intuitive menu. There are many connection possibilities to suit your working needs.

#### Connections

- RJ12 Premium Station Connections
- USB-B Compact Station Connection

#### Filter saturation indicator

The unit has a LED warning to know when it's time to replace the pre-filter or the compact filter. If the unit is connected to a station, the warning message will also appear on the station's display.

- Green:** Filter OK
- Yellow:** ≤ 20% Carbon lifetime or about to saturate
- Red:** End of Carbon lifetime or filter saturated.

## For a basic **working system**

The fume extractor automatically regulates the airflow depending on the number of suction tubes in use and the filter saturation.

### Fume Extractor for 1 workbench

It provides direct connection of up to 4 soldering or rework stations with a total of 4 tools.

**Accessory for Stand Suction**

You can connect up to 4 tool stands per port to avoid solder fumes when the tool is not being used.

**FAE030**  
**Accessory for Stand Suction**  
Suction for up to 4 stands (hole drilling required).

**FAE040**  
**Stand Suction + clamp**  
Includes a clamp to fix it in place.

**Stand Suction Duct**

The system detects when the tool is returned to the stand and the vent absorbs the fumes automatically.

**FAE060**  
**Fume Inlet Duct for Compact Stations**  
Length: 106 mm / 4.17 in.

**FAE050**  
**Fume Inlet Duct for Modular Stands**  
Length: 106 mm / 4.17 in.



**FAE010**  
**Flexible Hose Ø50 mm**  
Flexible extraction hose which connects Fume Extractor to FAE020 / FAE070 and FAE030 / FAE040  
Length: 1.5 m / 59 in (unfolded).

### Fume Extractor for 2 workbenches

It provides direct connection of up to 4 soldering or rework stations with a total of 4 tools.

#### Flexible Arm

Completely flexible arm to be adjusted to your workbench

**FAE020**  
**Flexible Arm Ø50 mm**  
Hole drilling is required.  
Length: 0.94 m / 37 in (compressed).

**FAE070**  
**Flexible Arm Ø50 mm + clamp**  
Includes a clamp to fix it in place.



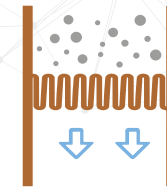
### Specifications

Dimensions	380 x 340 x 475 mm / 14.9 x 13.3 x 18.7 in	Blower type	Brushless
Weight	10.5 Kg / 23.15 lb	Flow rate	230 m <sup>3</sup> / h (135 CFM)
Ref. / Voltage (AC)	<b>FAE1-1C</b> / 120 V 50 / 60 Hz. Fuse 4A	Vacuum	4.3 kPa (0.62 psi) - 120V
	<b>FAE1-2C</b> / 230 V 50 / 60 Hz. Fuse 2.5A		6 kPa (0.87 psi) - 230 V
	<b>FAE1-1C</b> / 100 V 50 / 60 Hz. Fuse 4A		3.2 kPa (0.46 psi)
Input power	270 W - 120 V	Filters	Pre-filter M5 (according to Norm EN 779)*
	300 W - 230 V		HEPA H13 / H14 (according to Norm EN 1822)**
	200 W - 100 V		Carbon
Work areas	1 or 2	Noise	55 dB @ 1m

\*M5 Quality according to Norm EN779

\*\*Delivered with a test certificate according to Norm EN 1822-4





## Why use JBC Fume Extractor?

### Avoid exposure to solder fumes

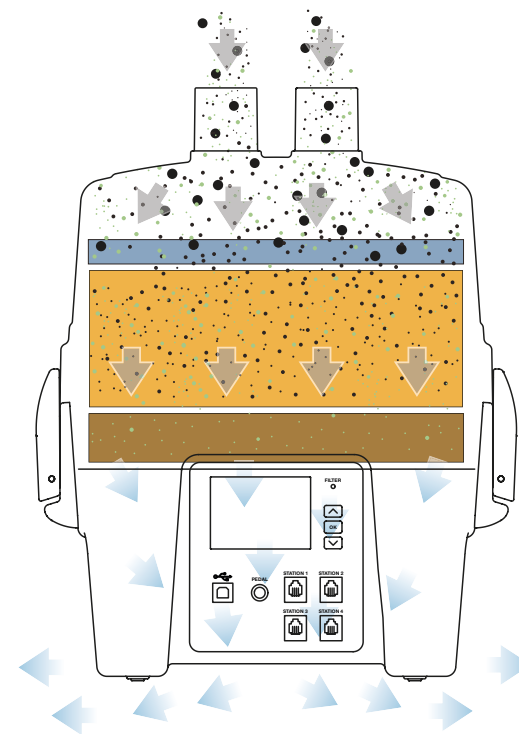
Health risks come with extended exposure to solder fumes.

Depending on the particle size, the fume can affect different parts of the respiratory system.

It is **important to use the correct safety equipment** to remove these hazardous substances.

## High-efficiency filters to remove even the smallest particles

The combination of the three-layered filter the system reaches a certified filtering efficiency of soldering fumes up to 99.95% in accordance with norm EN 1822-4.










Big particulates are held by M5 pre-filter

Medium-sized particulates are held by H13 / H14 Filter

Harmful gases are held by the active carbon filter

**99.95% Clean Air**

Clean air is circulated back into the workplace

-  Pre-filter (M5)
-  HEPA H13 / H14 filter
-  Active Carbon filter
-  Clean air
-  Contaminated air
-  Particulates
-  Harmful gases

Solid particles represent almost 90% of total fumes. They contain sublimation of rosin and other substances of thermal decomposition, both predominant of diterpens acid mixture.

The remaining percentage corresponds to other gases, composed of low-weight organic molecular compounds including acetone, methyl alcohol, aliphatic aldehydes and other hydrocarbons.

### Pre-Filter M5

It retains **large solid particles** in order to protect H13 or H14 filters and extend its lifetime.

Average efficiency for particles of 0.4 µm: 40-60% (in accordance with EN 779).



### HEPA filter

HEPA filter (High-Efficiency Particulate Air) **filters out the remaining solid particles.**

**HEPA H13** - it has an efficiency for MPPS \*  $\geq 99.95\%$  (in accordance with EN 1822).

**HEPA H14** is used in environments demanding exceptionally high levels of air purification, such as clean rooms. Efficiency for MPPS \*  $\geq 99.995\%$  (in accordance with EN 1822).

\* MPPS (Most Penetrating Particle Size) corresponds to the particle size at which the filter has a lower efficiency. The MPPS depends on the filter and the air flow, although usually it lies between 0.1-0.3 µm.

### Active Carbon filter

It **absorbs those gas molecules** which, due to their size, HEPA filter is not able to filtrate.

Active carbon is a good filter aid because of its highly porous structure. In order to improve efficiency, different factors are taken into account. Generally, the lower the air flow rate, the more times the fumes have to diffuse into a pore and be absorbed.



**ESD** safe



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