

Health & Safety Information

Control of Substances Hazardous to Health

Demonstrating adequate control of the risks to the health of employees, students and the general public from dusts, mists, fumes and vapours of aerosols, solvents, adhesives, resins, solder fumes, dusts, powders, etc is a potential hygiene/health hazard and as such falls under the Control of Substances Hazardous to Health (COSHH) regulations 2004 (revised)

These units are designed as predominantly 'spray-traps' for studio/workshop cleanliness for the immediate operator protection from concentrations of airborne contaminants. The BenchVent range of filtration/extraction cabinets are designed to vastly reduce and/or eliminate operator exposure to airborne contaminants in line with COSHH and Occupational Exposure Limits published annually in HSE document EH40/90.

The basic design principle for all BenchVent filtration/extraction systems consists of drawing air through a variety of filter media and creating a positive flow of air away from the operator, thus protecting the breathing zone. Filtered air is exhausted to the rear of the cabinet

Flammability Hazard Assessment

All BV products incorporate thermally protected, brushless, external rotor motor fans & blowers, together with sealed electrical wiring and switching downstream of filters.

A minimum airflow rate through a cabinet would be *5.16 m³ /min (5160 litres /min). A typical aerosol product (solvent cleaner, adhesive, conformal coating etc.) may emit up to 8 litres of flammable gas per can per minute.

Calculations based on the maximum hazard i.e. the lower explosive limits conclude that on average a total of 14 aerosols would have to be discharged simultaneously within a cabinet to reach a combustible level. A source of ignition would also have to be present for combustion to take place.

This would be a totally unwarranted and extremely unlikely use of the equipment and as such no flammability hazard is perceived.

* Flow rate based on cabinet with old/used filters.

Note: Dependant on application and frequency of use, filters should be replaced as recommended.

Serial No.	Date	Filter Ref.



British Made

T: 01423 790039

E: enquiries@benchvent.com

W: www.benchvent.com

BenchVent, Unit 1 Levens Hall Park, Lund Lane, Killinghall, Harrogate, North Yorkshire. HG3 2BG

Company No 03217859 Registered office: Widespread Solutions Ltd, Unit 1 Levens Hall Park, Lund Lane, Killinghall, Harrogate, North Yorkshire. HG3 2BG
BenchVent is a trading style of Widespread Solutions Ltd

E & OE - We go to great lengths to ensure accuracy in our literature, however, we cannot be held responsible for errors or omissions. Information is given for guidance only and we reserve the right to alter specification.

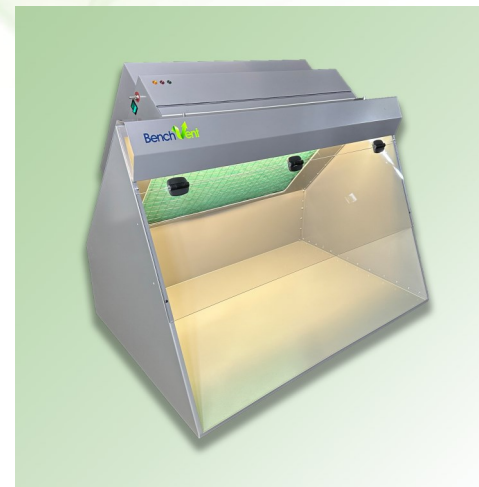


Operating Instructions & Warranty Information

BV930H-C Fume Filtration Hood

Bench & Desktop Fume Filtration Hood

Capture, contain and filter for a cleaner, healthier working environment within electronic design and rework, dental/ medical labs, pharmaceutical labs, design and technology, science in education and more..... For use in a multitude of situations where external venting is impractical but where contaminant capture and filtration is necessary.



Operation: Remove the handwheels from the hood enclosure and place the fan enclosure with filters onto the hood locating the M6 studs. The switch should be at the top left hand side of the unit. Replace the handwheels and tighten, thereby 'sandwiching' the filters between the hood and the fan enclosure. Attach Earth Bonding cable to hood stud provided. All handling of potentially harmful substances should be carried out within the hood enclosure. Model BV930H-C has a dual speed function and should be set to HIGH (green indicator) for maximum operator protection. After use the unit may be switched to LOW (amber indicator). Leave unit switched on

low for 2-3 minutes after use to eliminate any residual trace odour or vapour, either within the hood or in the surrounding atmosphere.

Ensure that the machine is always switched on before introducing contaminants to the unit in order to avoid unnecessary concentrations of particulates and vapours.

Work should be carried out only within the hood enclosure.

Applications:

For use in situations where external venting is impractical and hydrocarbon vapour and gas filtration is necessary. Applications include the handling and use of Electrochemicals (cleaning solvents, conformal coatings etc) resins, sealants and adhesives both in aerosol and static form, solder pots and solder irons. Also used in orthopaedics and dental laboratories for controlling staff exposure to, typically, methyl methacrylate, cyanoacrylate adhesives and for the safe weighing of hazardous powders.

Optional accessories available include Part No's HE705 (85%@ mpps) pleated particulate filter for fine dust/powder and solder fume capture to approx 0.3 microns.

These units are designed for operator protection whereby gases, fumes, vapours and particulate contaminants are filtered. Cleaned air is exhausted at the rear of the cabinet.

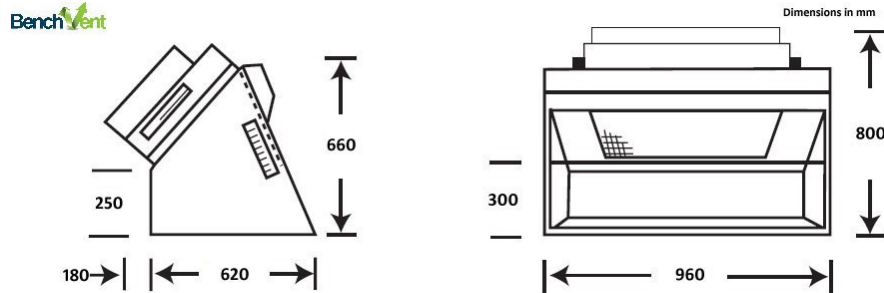
Go to www.benchvent.com to activate the **LIFETIME GUARANTEE**

Technical Specification

Fan Motors 230V 50Hz 210W,
 Average Air Velocity at Filter - 0.57m/sec (0.40m/sec)
 Ave. Air Velocity at Hood Face - 0.55m/sec (0.39m/sec)
 Average Air Volume at Free Air - 710m³/hr
 Noise Level LAeq - 62dBA
 Weight 60kgs

*measurement with EPA filter

Dimensions



Features

These units are recirculatory, i.e. filtered air is exhausted back into the workplace.

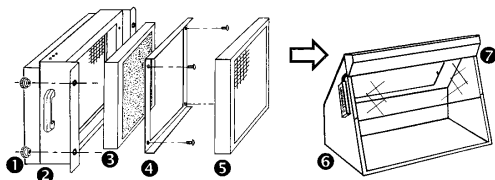
Comprising: Particulate filter to 5.0 microns - 4kg activated carbon filter - Centrifugal blower, brushless, external, rotor motor type, UL, VDE and CSA approved - Sealed electrical wiring and switch- dual airspeed function - Steel construction finished in dove grey - Hood enclosure workstation complete with clear polycarbonate panel and hood illumination (not 110V version). 110V 60Hz units are available on request. Mains leads' available for Europe, Italy, Denmark, Switzerland, USA and Australia.

Filtration

The particulate filter (Ref. 5) is a three stage, graduated fibre filter. The open structure of the first stage discourages surface loading and promotes depth filtration, ensuring a high dust holding capacity and reducing resistance to airflow. The denser backing filter and final scrim material provides finer filtration to 5 micron. An optional pleated EPA 85% @ mpps or HEPA 99.5% @ mpps. (approx 0.3 microns) are available for high-grade filtration, typically to arrest solder fume (smoke) particulates ranging in size from 0.3 to 10 microns and potentially harmful fine powders.

NB: Solder fume consists of 95% particulates and 5% gases.

The activated carbon filter (Ref. 3 below) will adsorb a high percentage of solvent vapour and gases.



REF NO	DESCRIPTION	PART NO
1	Handwheels M6 x4	P5004
2	Fan/Blower Housing/Mounting	P1002-C
3	Activated Carbon Filter	AC100
4	Carbon Filter Retainer	-
5	Particulate (intake) filter to approx 5 microns	IFA2
5	Particulate (intake) filter to approx 0.3 microns (optional)	HE705
6	Hood Enclosure	P4002
7	Hood Lighting Unit & Polycarbonate Panel	P4020L

Declaration of Conformity

Fan Manufacturer: Electrobau Mülfingen Gmbh & Co. Bachmühle 2,
 74673 Mülfingen, Germany.

Product Description: BV Filtration cabinet fitted with Ebm Ziehl Centrifugal
 Blower Cabinet no. BV930H-C

Radio Interference Source: Short circuit rotor motor.

Interference Suppression: None

List of standards conformity is declared to:

DIN VDE 0839 1.3.93 - German Version EN 50 082 Part 1 1992
 DIN VDE 0875 1.12.93 - German Version EN 50 014 1993
 DIN VDE 0838 2.6.87 - German Version EN 60 555 Part 2 1987
 DIN VDE 0838 3.6.87 - German Version EN 60 555 Part 3 1987
 DIN VDE 0838 1.4.93 - German Version EN 60 555 Part 3,A1 1991

Herewith we declare that products listed above under product description comply with basic security requirements of the EMC-Directive 2004/108/EC. Low Voltage Directive 2006/95/EC and Machinery Directive 2006/42/EC

LIFETIME WARRANTY

You must activate the lifetime guarantee for your product within 30 days of purchase by registering it with BenchVent. The easiest way to do this is by using our online form, alternatively you can email us.

In the unlikely event of any machine supplied by the Company being found to be defective, the Company shall be responsible for the repair or (at its discretion) replacement of the machine free of charge for labour and materials. The liability of the Company shall cease after expiry of 12 months from the date of delivery if any of the following conditions are not complied with:-

- Filters must be replaced as recommended, i.e. carbon and particulate filter should be changed at least every 6 months. If the machine is constantly in use, then particulate filters should be changed more frequently.
- Only genuine BenchVent replacement filters should be used.
- Machines must not be overloaded or used improperly.
- The correct electrical supply (as specified) must be used at all times.
- Naked flames and sparking devices must be kept well away from extraction cabinets.
- All filter elements must be fitted correctly.
- Filters must never be turned around as already deposited particulates may break off and contaminate the carbon filter and/or fans.
- No unauthorised repairs shall have been made to the machine.

IMPORTANT - KEEP ALL NAKED FLAMES, sparking devices etc, out of the vicinity of the extraction cabinets.