



**Being the first company to introduce comprehensive filter technology into the UK, Bofa International Ltd has unrivalled expertise in the field of fume elimination and control.**

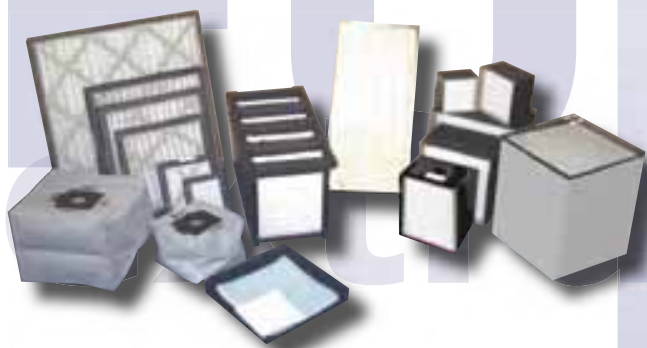
We pride ourselves on having the widest range of systems available, together with the technical knowledge to modify and develop turnkey solutions for the most demanding and diverse applications.

Much of our design criteria focus on our customers' need for simple, efficient and cost effective equipment with the product quality and reliability to ensure many years, trouble free operation.

Protecting company personnel and the environment is our objective. For this reason many of our customers require our product to achieve ISO 14001 certification, or to conform to the latest COSHH (Control of Substances Hazardous to Health) regulations.

Free site surveys, 24 hour service and maintenance support, together with COSHH re-certification are all part of the many services we are pleased to offer.

Dave Cornell  
Chairman



**All Bofa Extraction Systems incorporate a progressive series of filters designed specifically to maximise life for both particulate and gas capture.**

### PRE FILTER

The pre filter is designed solely to protect the life of the micro filter. For the majority of units, Bofa use a pleated synthetic media with a separation of typically 95% of particulate down to 0.8 microns. In cases where larger amounts of sub micron particulate are generated, a higher efficiency filter can be fitted or stand alone bag filter installed to give greater life to the pre filter and ensure adequate protection to the main filter.



### MICRO FILTER

Bofa Micro Filters incorporate a series of bonded webbing between the pleats. This feature not only gives even spacing between each pleat, but also alleviates the possibility of airflow vibration or collapse through pressure build up during gradual filter saturation. Each Micro Filter is designed to withstand up to 6 times the maximum operating pressure for its designated unit, with filter efficiency of 99.997% down to 0.3 micron and 95% as small as 0.1 microns.

### AIR FILTERS

Bactiguard air filters, used in various grades of pre and micro medias have been proven in independent testing to eradicate a wide range of micro-organisms. A list of the micro-organisms used in testing can be supplied on request. Most common types of bacteria referred to are MRSA, Salmonella and E.coli. On fungi, the most common referred to is aspergillus.



### GAS FILTER

The standard gas filter is made from Activated Carbon. The media neutralises a broad base of chemical and VOC (Volatile Organic Compound) pollutants. A comprehensive range of specialised filters together with electronic gas sensing is available for more demanding or diverse applications.

### PUMP TECHNOLOGY

The pump is the heart of the unit and as such, any compromise on quality will have an adverse effect on performance and long term reliability. Bofa use only the highest quality pumps and motors in all their units. All pumps are individually matched to the motors and dynamically balanced accordingly. Each assembly is produced in accordance with ISO 9002 and CE marked.

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# HIGH VOLUME EXTRACTION



This range of High Volume systems accommodates the removal and filtration of large air mass from the environment. When used in conjunction with our extensive range of arms, hoods, cabinets and flat bed extraction trays, hazardous processes can be undertaken in comfort and safety, ideal for removing the fumes generated during the hand soldering process. All systems have a built in silencer that achieve very low noise levels.

## System 200

### Single Arm High Volume Extraction Unit

Designed to extract fumes for one operator.

This unit is ideal for factories with changing demand, resulting in production layout changes.

It is fully comprehensive with an airflow of 90m<sup>3</sup>/h and 99.997% HEPA filtration.

### Unit Specifications

Dimensions (HxDxW)	Weight Kg	Flow Rate with filters fitted	Power Unit	Rated Output Kw	Voltage	Noise Level dBA	Duct Size mm	Duct Run mtrs	Filter Efficiency
380 x 260 x 260	7	90m <sup>3</sup> /h	Centrifugal Fan	0.06	230 I phase	54	50	3	99.997%

down to 0.3 micron DOP



A compact unit that comes complete with:

- 50mm ESD stay put extraction arm
- Installation flex and Table Bracket
- Bofa's unique flip top flush sealing mounting plate
- Granulated Carbon Gas Filter
- Filter Blocked Indicator
- 99.997% HEPA Filtration

## System 250

### Dual Arm High Volume Extraction Unit

The System 250 'Dual' Extraction unit is purpose built to protect two operators who are located either next to or opposite each other.

### Unit Specifications

Dimensions (HxDxW)	Weight Kg	Flow Rate with filters fitted	Power Unit	Rated Output Kw	Voltage	Noise Level dBA	Duct Size mm	Duct Run mtrs	Filter Efficiency
380 x 260 x 260	10	180m <sup>3</sup> /h	Centrifugal Fan	0.14	230 I phase	54	50	5	99.997%

down to 0.3 micron DOP



A compact unit that comes complete with:

- Two 50mm ESD stay put extraction arm
- Installation flex and Table Bracket
- Bofa's unique flip top flush sealing mounting plate
- Granulated Carbon Gas Filter
- Filter Blocked Indicator
- 99.997% HEPA Filtration



# HIGH VOLUME EXTRACTION

Bofa's centralised range of high volume extraction systems offer protection against harmful fumes from 3 to 55 operators. All units incorporate 3 stage filtration, filter condition gauge and built in silencing.



## System 600

**Bofa's NEW System 600 is a mid range, high volume unit**

Designed specifically for portability and low noise levels, this unit can be sited by the operator for single user operation or as a central unit, supporting up to 40 metres of trucking connected to multi-user applications.

### Unit Specifications

Dimensions (HxDxW)	Weight Kg	Flow Rate with filters fitted	Power Unit	Rated Output Kw	Voltage	Noise Level dBA	Duct Size mm	Duct Run mtrs	Filter Efficiency
600 x 380 x 380	30	350m <sup>3</sup> /h	Centrifugal Fan	0.2	230 1 phase	56	2 x 75	30	99.997%

down to 0.3 micron DOP

Maximum number of 32mm Arms	EC: 7	US: 7
Maximum number of 50mm Arms, Cowls or Down Draft Trays	EC: 5	US: 5
Maximum number of 75mm Arms, Cowls or Down Draft Trays	EC: 2	US: 2

## Systems 1000, 2500, 3500, 4500

**High Volume, Centralised Extraction Units**

### Unit Specifications

System	Dimensions (HxDxW)	Weight Kg	Air Flow (with filters fitted)	Power Unit	Rated Output Kw	Voltage	Noise Level (min flow) dBA	Noise Level (max flow) dBA	Duct Size mm	Filter Efficiency
1000	845 x 645 x 530	62	1000m <sup>3</sup> /h	Centrifugal Fan	1.1	230 1 phase	64	-	2 x 125	99.997%
2500*	845 x 645 x 530	75	1500m <sup>3</sup> /h	Centrifugal Fan	2.2	400 3 phase	48	60	2 x 125	99.997%
3500*	1200 x 740 x 600	100	2300m <sup>3</sup> /h	Centrifugal Fan	5.5	400 3 phase	50	64	2 x 125	99.997%
4500*	1350 x 1080 x 710	130	3000m <sup>3</sup> /h	Centrifugal Fan	7.5	400 3 phase	52	66	2 x 125	99.997%

\* Adjustable Flow Control

down to 0.3 micron DOP

System	1000	2500	3500	4500
Maximum number of 32mm Arms	EC: 14	18	25	55
	US: 15	18	25	55
Maximum number of 50mm Arms, Cowls or Down Draft Trays	EC: 10	16	20	40
	US: 12	16	25	40
Maximum number of 75mm Arms, Cowls or Down Draft Trays	EC: 5	8	12	20



# HIGH VOLUME ENTRY LEVEL UNITS

These compact, low cost systems are capable of generating high air flow rates from a range of bench top attachments. Units can be positioned comfortably under the bench with a simple installation kit to connect to the most suitable extraction accessory.



## System 300E

### High Volume, Entry Level Unit

A cost effective unit capable of extracting fumes, with optimal flow rates, for up to two soldering stations.

#### Options:

- Variable speed/ flow control available
- High efficiency filters available (up to 99.997) DOP (with a reduced airflow)

### Unit Specifications

Dimensions (HxDxW)	Weight Kg	Air Flow (with filters fitted)	Power Unit	Voltage	Noise Level dBA	Duct Size mm	Duct Run mtrs	Filter Efficiency
450 x 300 x 300	15	320m <sup>3</sup> /h	Radial Blower	230 1 phase	52	2 x 75	3	95%

Maximum number of 50mm Arms, Cowls or Down Draft Trays

EC: 2

US: 2

Maximum number of 75mm Arms, Cowls or Down Draft Trays

EC: 2

US: 2

down to 0.5 micron DOP  
higher efficiency filters available

## System 350E

### High Volume, Entry Level Unit

A compact, low cost system, capable of generating high air flow rates, having up to six metres of trunking connected to the system.

#### Options:

- Variable speed/ flow control available
- High efficiency filters available (up to 99.997) DOP (with a reduced airflow)
- A range of installation kits to suit accessories required

### Unit Specifications

Dimensions (HxDxW)	Weight Kg	Air Flow (with filters fitted)	Power Unit	Voltage	Noise Level dBA	Duct Size mm	Duct Run mtrs	Filter Efficiency
446 x 376 x 376	23	600m <sup>3</sup> /h	Radial Blower	230 1 phase	60	2 x 75	6	95%

Maximum number of 32mm Arms

EC: 7

US: 7

Maximum number of 50mm Arms, Cowls or Down Draft Trays

EC: 5

US: 5

Maximum number of 75mm Arms, Cowls or Down Draft Trays

EC: 4

US: 4

down to 0.5 micron DOP  
higher efficiency filters available

# HIGH VOLUME ACCESSORIES

Select the  
arm

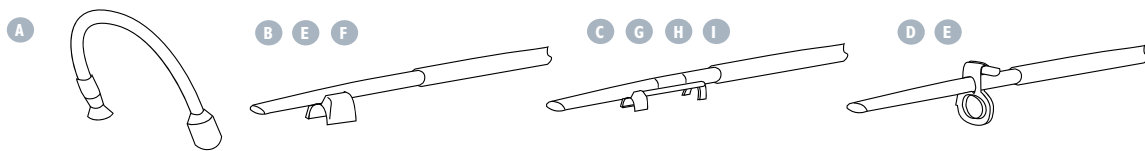
The arms are  
mounting bracket.

The cow  
positioned at one  
a premium. The



- |   |               |  |    |           |   |
|---|---------------|--|----|-----------|---|
| 1 | SPAF32ESD-P   | 32mm ESD Stay Put Arm with Funnel        | 9  | CCC50     | 50mm Clear Cowl                               |
| 2 | SPAN32ESD-P   | 32mm ESD Stay Put Arm with Nozzle        | 10 | CCC75ESD  | 75mm ESD Cowl                                 |
| 3 | SPAF50ESD-P   | 50mm ESD Stay Put Arm with Funnel        | 11 | CCC75     | 75mm Clear Cowl                               |
| 4 | SPAN50ESD-P   | 50mm ESD Stay Put Arm with Nozzle        |    | CCC75ESDL | 75mm ESD Cowl with Light (not shown)          |
| 5 | SPAS50ESD-P   | 50mm ESD Stay Put Arm with Slot          | 12 | DDT50ESD  | 50mm ESD Down Draft Tray                      |
| 6 | SPA-300-ESD-P | 75mm ESD Stay Put Arm Unit Mounted       | 13 | DDT75ESD  | 75mm ESD Down Draft Tray                      |
| 7 | SPAF75ESD-P   | 75mm ESD Stay Put Arm with Bench Bracket | 14 | TB50      | Table Bracket for 32mm and 50mm               |
| 8 | CCC50ESD      | 50mm ESD Cowl                            | 15 | FMP50ESD  | Automatic Flush System Seal for 32mm and 50mm |

# TIP EXTRACTION ACCESSORIES



- |   |  |   |  |   |   |
|---|--|---|--|---|---|
| A | <b>FFAI2/600</b> - Flexi Fume Arm (inclusive of shut off valve). 12mm x 600mm through bench kit.                                   | D | <b>UAK</b> - Adcola, Weller, Pace + (fits most other irons) Iron clip on kit, stainless steel tube, ESD silicone tube, cleaning brush, fasteners and holder. | H | <b>HAKO I</b> - Hakko Iron Connector, stainless steel tube, ESD silicone tube, fasteners, cleaning brush. |
| A | <b>FFAI2/600B</b> - Flexi Fume Arm (inclusive of shut off valve). 12mm x 600mm through bench mounting bracket.                     | E | <b>ERSAI</b> - ERSA Tip Tool Iron connector, stainless steel tube, ESD silicone tube, fasteners, cleaning brush.   | I | <b>JBCI</b> - JBC Advanced 2010/2045 Iron connectors, ESD silicone tube, fasteners.                       |
| B | <b>METCOI</b> - Metcal Iron Conversion Kit for 002/SP200 iron connector, ESD silicone tube, fasteners and cleaning brush.          | F | <b>ERSA2</b> - ERSA Micron Tool Iron Connector, stainless steel tube, ESD silicone tube, fasteners, cleaning brush.  |   | <b>WSF</b> - Metcal Universal Iron Holder for 002 and SP200 irons.  |
| C | <b>WAK</b> - Weller Mini Iron Conversion Kit Iron clip on kit, stainless steel tube, ESD silicone tube, fasteners, cleaning brush. | G | <b>ERSA3</b> - ERSA Ergo Tool, Tech Tool, Power Tool, Iron connector, stainless steel tube, ESD silicone tube, fasteners, cleaning brush.                    |   |   |

# TIP EXTRACTION

These high vacuum units are designed to extract and filter fumes and debris through small bore hoses and attachments. Ideally suited for soldering iron tip extraction, vac pens, flexi fume arms and any application requiring close proximity, micro extraction.



## Systems I & VT2

### High Vacuum (tip) Extraction Units

The smallest in our range of Bofa High Vacuum Extraction Systems. Designed specifically for portability and extremely low noise levels.

#### Unit Specifications

System	Dimensions (HxDxW)	Weight Kg	Flow Rate (4.5mm I/D Hose)	Power Unit	Rated Output kW	Voltage	Noise Level (dBA)	Filter Efficiency	
I	250 x 171 x 171	5	20-24 L/M	Linear Pump	0.06	230 I phase	< 48	99.997%	
System	Dimensions (HxDxW)	Weight Kg	Flow Rate (4.5mm I/D Hose)	Power Unit	Rated Output kW	Voltage	Noise Level (dBA)	Air Requirements	
								Pressure	Flow
VT	170 x 150 x 170	1	22-30 L/M	Air Ejector			<39	6 Bar	0.6 NI/S

Maximum number of Soldering Irons EC and US

System I: 1 VT2 (Air driven unit): 2

down to 0.3 micron DOP

## System I5

### High Vacuum (tip) Extraction Units

The medium range of Bofa High Vacuum Extraction Systems. Built in silencer for extremely low noise levels ensures a compact, portable unit.

#### Unit Specifications

Dimensions (HxDxW)	Weight Kg	Flow Rate/ Iron (4.5mm I/D Hose)	Power Unit	Rated Output kW	Voltage	Noise Level dBA	Duct Size mm	Duct Run mtrs	Filter Efficiency
560 x 330 x 330	28.5	22-30 L/M	Side Channel Blower	0.37	230 I phase	<50	50	200	95%

Maximum number of Soldering Irons

EC: 15

US: 18

down to 0.3 micron DOP

## Systems 30, 60, 100 range

### High Vacuum (Tip) Centralised Extraction Units

Due to the high concentration of debris generated from up to 100 operators, these systems have been designed to keep the unit compact, but still utilise a comprehensive filter system. With this in mind, Bofa have developed a design that incorporates a facility for retaining a high concentration of particulate within the filter enclosure. All systems have a built in silencer. Each silencer has a collar which facilitates re-direction or external venting of filtered air if required.

#### Unit Specifications

System	Dimensions (HxDxW)	Weight Kg	Flow Rate/ Iron (4.5mm I/D Hose)	Power Unit	Rated Output kW	Voltage	Noise Level (dBA)	Duct Size mm	Duct Run mtrs	Filter Efficiency
30	500 x 630 x 430	30	22-30 L/M	Side Channel Blower	0.8	230 I phase	< 66	50	400	99.997%
60	700 x 770 x 475	50	22-30 L/M	Side Channel Blower	2.2	380/415 3 phase	< 66	50	600	99.997%
100	700 x 770 x 475	52	22-30 L/M	Side Channel Blower	2.2	380/415 3 phase	< 66	50	800	99.997%

down to 0.5 micron DOP

System

30

60

100

Maximum number of Soldering Irons

EC: 30 US: 36

EC: 60 US: 72

EC: 100 US: 120



# MACHINE SOLDERING

## Systems M250, M600, M1000, M2500, M3500, M4500

From small bench top to centralised, high through-put machines, Bofa have a comprehensive range of systems for the light to heavy user. The Bofa range of machine soldering extraction and filtration systems can be fully integrated with your machinery so the system will start and stop automatically. Other options such as a fail-safe signal for system failure and filter replacement can also be fitted.

### Unit Specifications

System	Dimensions (HxDxW)	Weight Kg	Flow Rate m <sup>3</sup>	Power Unit	Rated Output kW	Voltage	Filter Efficiency
M250	470 X 300 X 300	25	210	Centrifugal Fan	0.09	110/230	99.997%
M600	590 X 380 X 380	20	350	Centrifugal Fan	0.2	110/230	99.997%
M1000	845 X 640 X 530	62	1000	Centrifugal Fan	1.1	110/230	99.997%
M2500	845 X 640 X 530	75	1500	Centrifugal Fan	2.2	400 3ph	99.997%
M3500	1200 X 740 X 600	100	2300	Centrifugal Fan	5.5	400 3ph	99.997%
M4500	1350 X 1080 X 710	130	3000	Centrifugal Fan	7.5	400 3ph	99.997%

### Unit Options

System	24V Stop/Start	Dual Voltage Frequency	Flow Control	Auto Flow Control	Filter Change Signal	System Failure Signal	Gas Monitoring	Particulate Monitoring
M250	•	•	•	•	•	•	•	•
M600	•	•	•	•	•	•	•	•
M1000	•	•	•	•	•	•	•	•
M2500	•	•	✓	•	•	•	•	•
M3500	•	•	✓	•	•	•	•	•
M4500	•	•	✓	•	•	•	•	•

• Optional ✓ Standard • Unavailable

## FABRICATION & MACHINE SHOP

**Bofa have extraction and purification systems that integrate perfectly with fabrication and machine shop environments. For welding, PCB cutting and other high fume or particulate generating operations. With either portable or fully installed centralised systems, hazardous fumes or other materials can be removed and filtered efficiently.**

For centralised units, control valves at each extraction point ensure maximum utilisation of the system, with independent separation filters to collect heavy materials and fluids. Some designs incorporate separation matched with a three stage coalescing pre-filter for containment of all fluids.

Particulates are then separated to 99.997% DOP and gasses adsorbed. A range of accessories from telescopic arms for large mass extraction to small slotted nozzles, funnels and fish tail stay put assemblies can be used for varied applications.

### Applications

- Welding
- PCB Cutting
- Splitting
- Routing
- Grinding
- Etching
- Drilling
- Swarf Removal
- Lathing

### Options Include

- Auto Fluid Level Shut Off
- Gas/ Fluid Level Alarm
- Variable Speed/ Flow Control
- Dual Voltage and Frequency



Mobile welding/  
grinding unit

# MEDICAL AND PHARMACEUTICAL INDUSTRY



Many processes in the medical and pharmaceutical industry produce harmful chemical fumes, dust and bacteria. Bofa produce a wide range of corrosion resistant units for wipe clean or hose down, sterile conditions, that can remove and retain these elements safely.

Our mini pleat HEPA or higher efficiency ULPA filter (99.999 to 0.1 micron) can be supplied with a specially formulated anti-bacterial coating to prevent the passage of micro constituents to virus size. Chemical and gas filter medias can be combined to neutralise VOC's and other chemical substances.

## Applications

- Thermal Surgery (Laser or Hot Tool)
- Chemical Formulation
- Laboratory Work
- Pill and Capsule Production
- Marking (Date and Batch Coding)
- Research and Development
- Units designed for hazardous power handling in laboratories.

Many of our systems are designed for specific applications, in particular the OEM Market, so please call our technical helpline for assistance.

Bactiguard air filters, used in various grades of pre and micro medias have been proven in independent testing to eradicate a wide range of micro-organisms. A list of the micro-organisms used in testing can be supplied on request. Most common types of bacteria referred to are MRSA, Salmonella and E.coli. On fungi, the most common referred to is aspergillus.



## SPECIALISED PRODUCTS

Bofa have a department dedicated to design and OEM projects. We pride ourselves on quick, low cost, turn around prototypes and low volume or one off production units. Below you will find a few OEM units that we have designed, prototyped and manufactured.



### A Multi-purpose, high vacuum system that combines the following:

- Tip extraction for soldering irons
- Vac pens for collecting debris
- Vacuum packaging



### B OEM Product - Printing Industry:

Stand alone unit with consumables trolley/tray for the printing cycle on a screen printing machine, that includes:

- 24v Stop/Start interface with printer
- Filter condition indicator
- Running Light
- Re-Settable thermal trip fuses
- Dual voltage/frequency with voltage selector switch
- Vacuum/Flow adjustment
- On/Off standby mains indicator



### C Built in extraction unit for cleaning cycle on screen printing machine.



### D Atex approved Extraction Unit

The unit has been specifically designed for use with welding, grinding and turning equipment in RAF aircraft hangers where aviation fuel is present.

- Ideal for military use
- High volume extraction
- Portable





Introducing BOFA's new ADVANTAGE range of Laser Fume Control Technology; incorporating our unique, deep mini pleat 2 stage pre filtration design. Most companies see laser fume extraction as a necessary evil, required to protect both the laser optics and the health of their operatives. With this in mind, our design philosophy is:

***“To supply RELIABLE, SAFE, EASY TO USE, COST EFFECTIVE systems.”***

## RELIABILITY

The vacuum pump is at the heart of the unit and all BOFA extractors are fitted with continuously rated pumps with a minimum life expectancy of 30,000 hours. This enables us to offer a 3 year warranty on all our laser extraction units. This warranty is backed up by our pump suppliers, giving you the added reassurance that BOFA systems are the most reliable on the market. Comprehensive training and support is also offered to both OEM's and end users.

## SAFETY

A full range of unit and filter monitoring options are available to suit your specific requirements (see unit data sheets). Airflow path gives maximum filter life but also ensures that all particulate is held in the filters. The design of the unit is such that the exhausted air is blown into a sealed silencer box. This totally isolates any potentially explosive fumes from being blown around the electrical equipment. This is critical even when gas sensors are used as a foolproof precaution.

## EASE OF USE

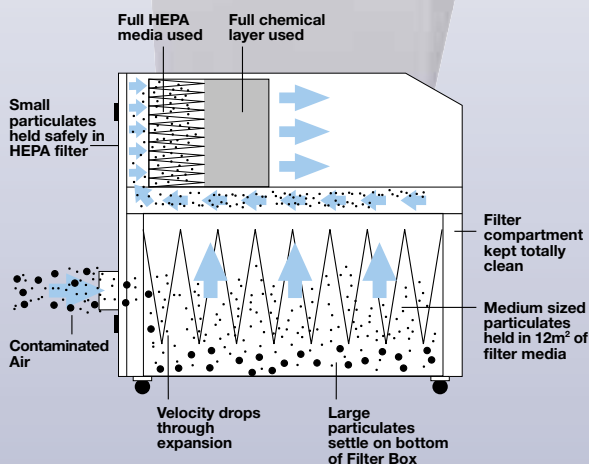
Filter change is simply a case of opening the door at the rear of the unit and replacing the used filters with clean ones. Simple controls or alarms, either visual or direct to the laser, indicate the need for filter replacement.

## COST EFFECTIVE

Much of our design criteria is focused on our customers need for cost effective equipment. Our standard units offer many options for turnkey solutions. This enables the customer to purchase only the options that they require.

## REPLACEMENT FILTERS

Low consumable costs are a big benefit for customers choosing Laser coders over inkjet. Many extraction systems have extremely expensive replacement filters making for very high annual running costs. BOFA have the highest capacity and by far the lowest cost filters available on the market.



## ADVANTAGE 2 STAGE PRE FILTER

Most ADVANTAGE units are fitted with the new concept Deep Mini Pleat pre-filter as standard. This unique filter gives a staggering 12m<sup>2</sup> of media surface without compromising the efficiency, which remains at 95%. Contaminated air enters the system through a 50mm, 75mm or 400mm inlet and is instantly expanded in the large pre filter chamber, causing the velocity of the air to drop. The effect of this causes the larger particulate to rest gently on the surface of the filter, rather than hit it at speed, lodging within the filter media. Once the particulate has built up and got heavier, gravity breaks it away from this filter, thus extending its life. Breakaway particulate is captured within the filter box.

## HEPA FILTER

All BOFA HEPA filters are manufactured by specialist filter companies to our specification. This ensures that the latest manufacturing and testing techniques are used. Each filter incorporates a series of bonded webbing between the pleats. This feature not only guarantees even spacing between each pleat, but also alleviates the possibility of airflow vibration or collapse. Filters are individually tested and certified to a minimum efficiency of 99.997% down to 0.3 microns and 95% as small as 0.1 microns.

## CHEMICAL/GAS FILTER

The standard chemical filter contains a multi purpose media to give protection against the large range of VOC's (volatile organic compounds) generated when laserling a wide range of organic materials. Additionally we can offer a variety of other medias to fine tune the selection for particularly arduous applications.

## PVC LASERING

It is imperative on PVC applications that all internal contact parts are coated in an acid resistant epoxy and that a specialist HCL sensor is installed to the extractor. This sensor gives an alarm as soon as the adsorption media is nearing saturation. The problem of acidic hydrogen chloride getting through filters needs to be resolved long before it has a chance to condense, since the gas is a major health hazard, with a maximum exposure level of 1ppm (8hr period from HSE EH40/2000 Occupational Exposure Limits).

## FILTER REPLACEMENT

Filters can be replaced quickly with ease and safety. Each new filter comes with a resilient neoprene gasket fitted. This ensures that there is no filter bypass caused through re-using existing potentially torn or perished built in seals.

## UNIT & FILTER MONITORING SYSTEM

Each ADVANTAGE unit is fitted with a continuous monitoring system. 3 coloured LED's on the front of the unit tell the user of the condition of filters within the system. A green light indicates that the filters are clean; amber when filters are getting close to replacement and red when filters are blocked and requiring changing. The green LED also indicate that the unit is running and all 3 LED's will flash if there is a fault with the system.

## FEATURES

Most of the Advantage units can be constructed from either Stainless Steel or Powder Coated Mild Steel. The Stainless Steel fabrication is suitable for wash down facilities such as high speed PET bottling lines. The Powder Coated Mild Steel version is not suitable for applications where water is present.



Two units specifically designed for every method of laser marking and engraving. The high extraction rate and vacuum, coupled with unsurpassed filter capacity and design, makes premature filter skinning or blocking a thing of the past. These units can be modified for PVC processing with an additional upgrade that incorporates a unique HCL gas monitor.

## UNIT SPECIFICATIONS

### Carcass

Main body, central support, door and base are brushed stainless steel or powder coated mild steel.

### Standard Equipment

2 year warranty  
Industrial grade castors, 2 lockable  
Integral silencer  
Unit and filter monitoring system  
Sound level below 60dba  
Standard filter set (see below)  
Unit 180: 50mm diameter inlet  
Unit 400: 75mm diameter inlet  
Corrosion resistant carcass  
Weight: 60kg

### Electrics

230v 1ph 50/60hz or (110v 60/50hz)  
3 metres hard wired power cable  
Illuminated trip ON/OFF switch  
Unit 180 Full Load Current: 5.8 amps (12.5)  
Unit 400 Full Load Current: 7.15 amps (14)

### Blower/Pump

30,000 hours life Output Airflow  
Unit 180: 0.8kW 180m<sup>3</sup>/hr  
Unit 400: 1.1kW 400m<sup>3</sup>/hr  
Brushless motor

### Standard Filter Set

2 stage pre filter  
85% efficiency at 0.8 micron  
12m<sup>2</sup> of surface area

### Combined Filter

99.997% efficiency at 0.3 micron  
Activated carbon mix

## UNIT OPTIONS

### 24v Stop/Start

Allows the extractor to start and stop in sequence with laser.  
Requires 18-32 volt signal AC or DC.

### VOC Indicator

Alerts you when Volatile Organic Compounds are getting through the gas filter.

### PVC Upgrade

To be used when processing PVC.  
Includes acid proofing of internal contact parts, VOC monitoring and specific HCL monitor.

### System Failure/ Filter Blocked Signal

Signals laser in the event of a failure within the extractor.

### Dual Voltage/Frequency

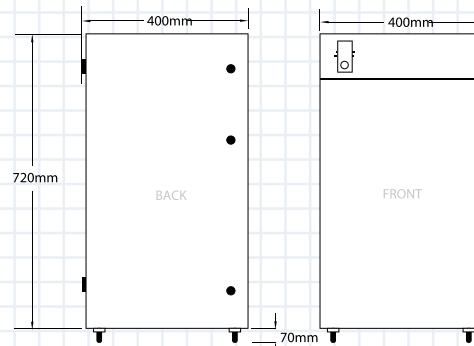
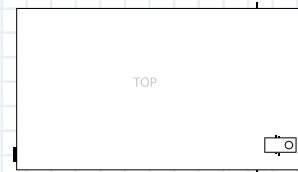
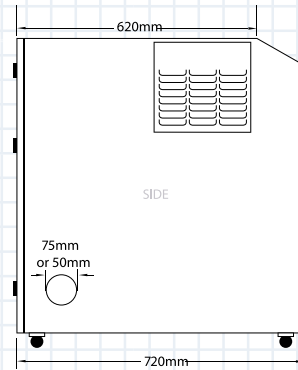
Dual Voltage/ Frequency.  
Ideal for OEM's who will be selling extractors with their lasers worldwide.

### Automatic Flow Control

Allows user to set required airflow. The unit will then maintain this airflow even as filters start to block.

### Filtered Cool Air

Provides clean cooled air to reduce laser electronic maintenance.



## GUIDE TO FILTER LIFE

FILTER LIFE GIVEN IN MONTHS	COMBINED		2 STAGE PRE FILTER	
	180	400	180	400
Glass	12	12	9-12	6-9
Paper/Wood/Ceramic/Acetate/Cellulose	9-12	9-12	9-12	6-9
Metal	12	12	9-12	6-9
PET/PP/PE/Epoxy/EPDM/Rubber	6-9	6	4-6	2
Ink Printed/Painted	6-9	6	4-6	2
PVC	6-9	6	4-6	2

This chart is a guide only. Factors such as character height, number of characters and depth of the mark will have an effect on the life of the filter.

The Advantage 250 & 350 laser fume extraction and purification systems have been designed to be low cost, yet fully comprehensive and can be used with all manufacturers laser engraving systems. These compact and extremely quiet systems are ideal for use in schools, sign making workshops, industrial environments and light laser coding applications.

## UNIT SPECIFICATIONS

### Carcass

Manufactured in powder coated mild steel or stainless steel

### Standard Equipment

2 year warranty  
Integral silencer  
Unit and filter monitoring system  
Standard filter set  
Unit 250: 50mm inlet  
Unit 350 - 75 or 100mm inlet  
Weight: 35kg

### Electrics

230v 1ph 50/60hz or (110v 60/50hz)  
3 metres hard wired power cable  
Illuminated ON/OFF switch  
Full Load current: AD250: 0.9 (1.1) amps  
AD350: 1.9 (2.5) amps

### Blower/Pump

30,000 hours life  
AD250 - 200m<sup>3</sup> 90 watts (107)  
AD350 - 400m<sup>3</sup> 204 watts (256)  
Brushless motor

### Standard Filter Set

Pre filter  
95% efficiency at 0.8 micron

### Combined Filter

99.997% efficiency at 0.3 micron  
Activated carbon mix

## UNIT OPTIONS

### 24v Stop/Start

Allows the extractor to start and stop in sequence with laser.

### VOC Indicator

Alerts you when Volatile Organic Compounds are getting through the gas filter.

### System Failure/ Filter Blocked Signal

Signals laser in the event of a failure within the extractor.

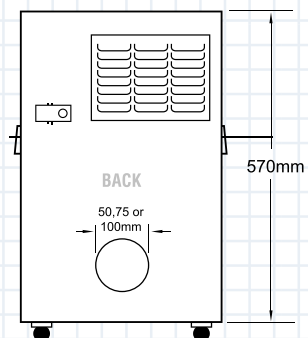
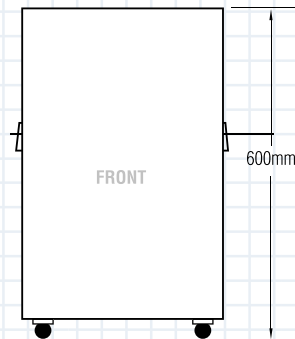
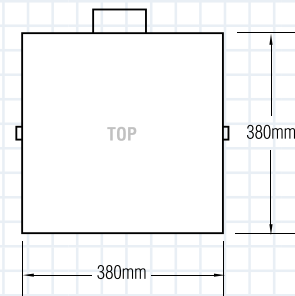
### Exhaust Outlet

Choice of louvred exhaust or connection outlet spigot.

## GUIDE TO FILTER LIFE

FILTER LIFE GIVEN IN MONTHS	COMBINED	MINI PLEAT
Glass	6-9	2-4
Paper/Wood/Ceramic/Acetate/Cellulose	6-8	2-4
Metal	7-9	2-4
PET/PP/PE/Epoxy/EPDM/Rubber	3-6	1-3
Ink Printed/Painted	3-6	1-3
PVC	N/A	N/A

This chart is a guide only. Factors such as character height, number of characters and depth of the mark will have an effect on the life of the filter.



The Advantage 800 has been designed to extract fume from large laser engraving and marking cabinets. Its high airflow (800m<sup>3</sup>/hr) and large filters also make this unit suitable for extracting fumes from multiple laser coding applications.

## UNIT SPECIFICATIONS

### Carcass

Main body, central support, lid and base are manufactured in brushed stainless steel or powder coated mild steel.

### Standard Equipment

2 year warranty  
Manual speed control  
Industrial grade castors, 2 lockable  
Integral silencer  
Unit and filter monitoring system  
Sound level below 69dba (max flow)  
Standard filter set (see below)  
100mm diameter inlet  
Weight 110kg

### Electrics

230v 1ph 50/60hz or 110v 60/50hz  
3 metres hard wired power cable  
Illuminated ON/OFF switch  
Full Load Current: 14.3 amps

### Blower/Pump

30,000 hours life  
2.2kw output  
Airflow 800m<sup>3</sup>/hr  
Brushless motor

### Standard Filter Set

2 Stage pre filter  
95% efficiency at 0.8 micron  
16m<sup>2</sup> of surface area

### Combined Filter

99.997% efficiency at 0.3 micron

## UNIT OPTIONS

### 24v Stop/Start

Allows the extractor to start and stop in sequence with laser .  
Requires 18-32 volt signal AC or DC.

### VOC Indicator

Alerts you when Volatile Organic Compounds are getting through the gas filter.

### PVC Upgrade

To be used when processing PVC. Includes acid proofing internal contact parts, VOC monitoring and specific HCL monitor.

### System Failure Signal

Signals laser in the event of a failure within the extractor.

### Filter Change Signal

Signals laser when filters need replacing.

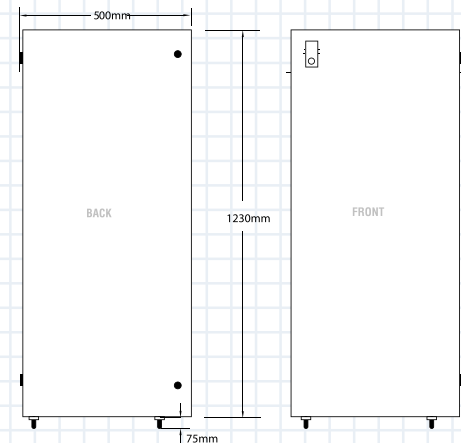
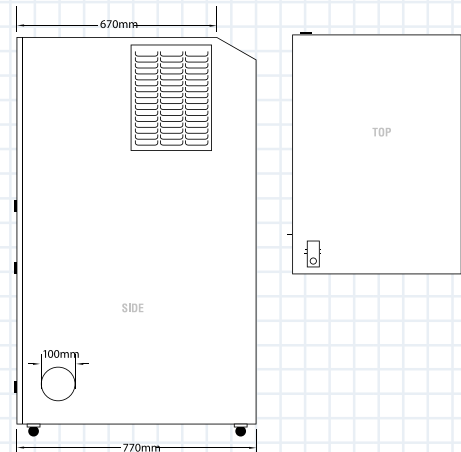
### Automatic Flow Control

Allows user to set required airflow. The unit will then maintain this airflow even as filters start to block.

## GUIDE TO FILTER LIFE

FILTER LIFE GIVEN IN MONTHS	COMBINED	MINI PLEAT
Glass	12	6-9
Paper/Wood/Ceramic/Acetate/Cellulose	9-12	6-9
Metal	12	6-9
PET/PP/PE/Epoxy/EPDM/Rubber	6	2
Ink Printed/Painted	6	2
PVC	6	2

This chart is a guide only. Factors such as character height, number of characters and depth of the mark will have an effect on the life of the filter.



The ADVANTAGE VL Laser Fume Extraction and Purification System has been designed to be used in conjunction with the ULS Versa 200 and 300 lasers. The system comes with a compressor option to supply the Versa laser with its compressed air requirements.

The new ADVANTAGE 500 has not only been designed for efficiency and quiet extraction, but also as a workstation. When the engraver is mounted on top of the unit it creates the perfect operation height. It can also be fitted with a compressor for most laser manufacturers requirements.

The unique 2 stage pre-filter design offers over 12m<sup>2</sup> of filter surface area, keeping the cost of ownership for these units to a minimum.

## UNIT SPECIFICATIONS

### Carcass

Manufactured in powdered coated mild steel.

### Standard Equipment

2 year warranty  
Integral silencer  
Unit and filter monitoring system  
Corrosion resistant carcass  
Standard filter set (see below)  
Unit VL: 75mm inlet  
Unit 500: 75/100mm inlet  
Weight 80kgs

### Electrics

230v 50/60hz or 110v 50/60hz  
3 metres hard wired power cable  
Illuminated ON/OFF switch  
Unit VL Full Load Current: 0.9 amps (1.1)  
Unit 500 Full Load Current: 7.2 amps (14)

### Blower/Pump

30,000 hours life  
Output      Airflow  
Unit VL:    0.35kw    200m<sup>3</sup>  
Unit 500:   1.1kw    400m<sup>3</sup>  
Brushless Motor

### Standard Filter Set

2 Stage pre filter  
95% efficiency at 0.8 micron  
12m<sup>2</sup> of surface area

### Combined Filter

99.997% efficiency at 0.3 micron  
Activated carbon mix

## UNIT OPTIONS

### 24v Stop/Start

Allows the extractor to start and stop in sequence with laser.  
Requires 18-32 volt signal AC or DC.

### VOC Indicator

Alerts you when Volatile Organic Compounds are getting through the gas filter.

### PVC Upgrade

To be used when processing PVC. Includes acid proofing internal contact parts, VOC monitoring and specific HCL monitor.

### System Failure Signal

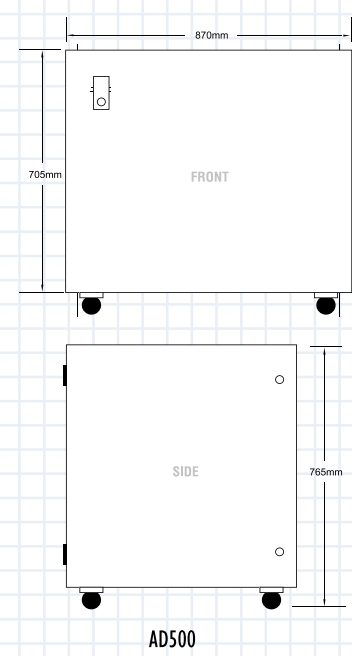
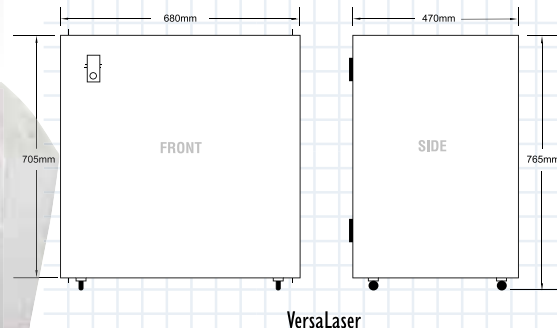
Signals laser in the event of a failure within the extractor.

### Filter Change Signal

Signals laser when filters need replacing.

### Automatic Flow Control

Allows user to set required airflow. The unit will then maintain this airflow even as filters start to block.





The ADVANTAGE 1500 & 4000 have been designed to cope with the mass of fume and dust generated during the laser cutting of various materials. These units have huge airflow and massive filter holding capacity. They are unrivalled in the field of laser cutting.

These systems can also be used as centralised extraction units for multiple laser marking heads.

## UNIT SPECIFICATIONS

### Carcass

Main body, central support, door and base are manufactured in zintech steel and powder coated

### Standard Equipment

2 year warranty  
Industrial grade castors, 2 lockable  
Integral silencer  
Unit and filter monitoring system  
Gas detection  
Automatic flow control  
Standard filter set (see below)  
2 x 125mm diameter inlets

### Electrics

400v 3ph 50hz  
Illuminated ON/OFF switch

### Blower/Pump

30,000 hours life

Output    Airflow

Unit 1500: 2.2kw 1500m<sup>3</sup>/hr

Unit 4000: 7.5kw 4000m<sup>3</sup>/hr

IP54 synchronous (brushless) motor

### Standard Filter Set

Deep pleat pre-filter  
95% efficiency at 0.8micron  
19m of surface area  
Gas filter media: active carbon mix

## UNIT OPTIONS

### 24v Stop/Start

Allows the extractor to start and stop in sequence with laser.  
Requires 18-32 volt signal AC or DC.

### VOC Indicator

Alerts you when Volatile Organic Compounds are getting through the gas filter.

### PVC Upgrade

To be used when processing PVC. Includes acid proofing internal contact parts, VOC monitoring and specific HCL monitor.

### System Failure Signal

Signals laser in the event of a failure within the extractor.

### Filter Change Signal

Signals laser when filters need replacing.

## GUIDE TO FILTER LIFE

FILTER LIFE GIVEN IN MONTHS	COMBINED	MINI PLEAT
Glass	12	9-12
Paper/Wood/Ceramic/Acetate/Cellulose	9-12	9-12
Metal	12	9-12
PET/PP/PE/Epoxy/EPDM/Rubber	6-9	4-6
Ink Printed/Painted	6-9	4-6
PVC	6-9	4-6

