



A Donaldson Company

A WORLD LEADER IN FUME  
EXTRACTION TECHNOLOGY

LASER FUME EXTRACTION  
**ADVANTAGE RANGE**



# BOFA INTERNATIONAL IS A MULTI AWARD-WINNING WORLD LEADER IN PORTABLE FUME EXTRACTION AND FILTRATION TECHNOLOGY.

We design, develop and manufacture systems for a wide range of industrial sectors and applications.

Our products are a very important part of your environment, health, and safety programme as they filter potentially harmful dust and fumes, which may be generated during industrial processes, while minimising disruption to production.

## WHY BOFA

- ✓ 35 years' **experience** developing portable fume and dust extraction and filtration systems
- ✓ **Innovative** world-class solutions
- ✓ High **quality**, affordable systems
- ✓ **Dedicated** in house capabilities
- ✓ Helping to keep the world working **safely**
- ✓ **Global** network
- ✓ **Local** language support
- ✓ Continual **investment**
- ✓ **Environmental** policy
- ✓ A **Donaldson** company

BOFA is proud to be a Donaldson company. Founded in 1915, Donaldson is a global leader in the filtration industry with sales, manufacturing and distribution locations around the world.





## MARKET LEADING **TECHNOLOGY**

**We are recognised as a market leader,  
delivering great value, high quality products.**

Many years of designing and manufacturing fume extraction and filtration systems for a wide range of industries has given BOFA the experience and knowledge to ensure that our product solutions are the best available on the market. We have applied our in-depth understanding of industrial processes and applications into the design and manufacture of our products.

## THE FUTURE FOR FUME EXTRACTION **IS TRULY GLOBAL**

The need for fume extraction continues to be inherently linked with Health and Safety laws and compliance. Within the developed western markets such legislation is well defined and in the main compliance levels are high.

Most encouraging is the growing trend for improved employee welfare and environmental responsibility in regions where historically there has been less regard for either. This is a welcome and significant step change for our planet, and one that at the macro level will drive an even greater demand for fume extraction.

# KNOWLEDGE AND INNOVATION

Our dedicated team has a wealth of knowledge within our field which is established and trusted by all sizes of business, from global market leaders to niche producers in a wide cross section of industries.

Innovation is at the heart of everything we do, meaning we develop the most technically advanced products on the market. But we also have the flexibility to develop bespoke solutions to suit our customers' requirements. Our programme of ongoing investment in research and development allows us to continuously improve products and pioneer new cutting-edge technologies, bringing the best and latest developments to our portfolio.



## QUALITY MANUFACTURING

Our philosophy is to maintain control of supply and quality standards throughout the entire manufacturing process of our products. We have an extensive range of fume extraction solutions to satisfy a broad range of applications - from single user systems to units that pack a heavyweight punch with unsurpassed filter capacity, high performance and everything inbetween. All made to the highest international manufacturing standards.



# AWARD WINNING TECHNOLOGY

## *BOFA is awarded the Queen's Award for Enterprise 2017 for Innovation!*

In 2017 we were awarded the Queen's Award for Enterprise: Innovation for our revolutionary Intelligent Operating System (iQ) , which is transforming the way that organisations around the world use BOFA fume extractors as an important part of their overall strategy to help protect employee safety and improve production processes. See page 9 for more information.

Our Queen's Award for International Trade in 2012, recognises that over 90% of our products are now exported overseas.

# TRAINING DESIGNED FOR YOU

Free training modules delivered by our knowledgeable team direct to you, to help you stay up to date. We've designed our modules so they can be delivered in a way convenient to you - either online or face to face - in a simple and effective format to ensure you get the most out of the time you invest in training. It's all part of the exceptional support and experience we offer.

This training is for anyone who comes into contact with fume extraction or is responsible for health and safety in the workplace - whether it's researching and determining the requirements in your workplace; designing new products that need appropriate extraction or selling products into the market:

- Sales and Marketing
- Technical
- Product management
- Service/ installation



Find out more:  
[bofainternational.com/bofa-academy](http://bofainternational.com/bofa-academy)

# iQ2



## The next generation of fume extraction technology is here!

The huge success of BOFA's unique Intelligent Operating System (iQ) established a step change in the performance of fume extraction technology. iQ2 builds on this and incorporates a range of new and highly advanced feature enhancements to transform your productivity.

- Optimise maintenance schedules
- Minimise unplanned downtime
- Support plant efficiency
- Access a complete system overview
- Quick system navigation
- Modern look and feel

### GET MORE **HANDS-ON**

#### USER-FRIENDLY INTERFACE

With a hi-resolution full colour touchscreen, it's easy to use and configure to your precise requirements. The intuitive user experience makes it quicker and easier to navigate the system and access the data you need.

### GET MORE **VERSATILITY**

#### CUSTOMISABLE BUILDS

Expand the reach of your extraction system through highly accessible multi-language functionality, remote configuration and bespoke branding options. In addition, multi voltage sensing and certification make this a truly global product.

### GET MORE **INSIGHTS**

#### ENHANCED REAL-TIME REPORTING

Advanced real-time reporting and longer data logs allow you to collect and analyse detailed data, enabling maintenance to be scheduled at optimum levels. Automatic system diagnostics provide immediate, clear notification if an issue needs to be addressed.

### GET MORE **CONTROL**

#### FULLY CONFIGURABLE

#### ALARMS AND WARNINGS

Interface connectivity and upgraded remote monitoring means you'll always know what's happening across your system. A series of highly configurable alarms and warnings can be tailored to your requirements – so you can access accurate diagnostics, and reduce unplanned downtime.



Intelligent  
Operating  
System (iQ2)



Touch screen  
control



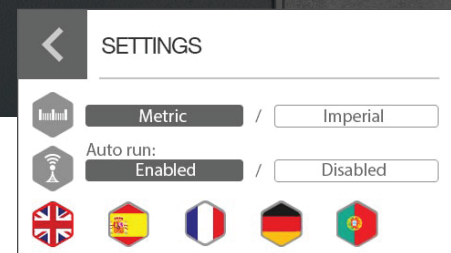
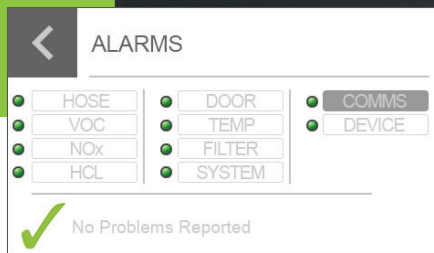
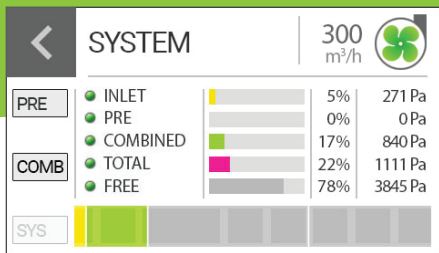
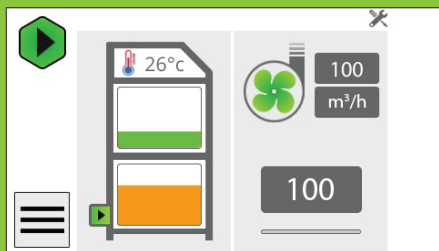
Hi-resolution  
5" colour  
screen



SmartNav  
GUI layout



Run Safe



## GET MORE PRODUCTIVITY

### UTILISE SMART DATA

Realise all the benefits of smart data, enabling you to better optimise maintenance costs, minimise unplanned downtime and support plant efficiency. With a complete system overview, you'll change the right filter at the right time.

## GET MORE HELP

### HOW iQ2 CAN HELP YOU

Strengthen your proposition and achieve deeper customer loyalty by offering greater post-sales analysis, a bespoke solution which works globally, optimised installation and a platform ready for future developments.

The 5" colour touchscreen gives quick access to real-time information, system status, accurate independent filter monitoring and overall usage capacity to help reduce downtime and quick access to data.

## GET THE COMPLETE SOLUTION

### THE AD ORACLE iQ2 ADVANCED FUME EXTRACTOR

Find out more:

[bofainternational.com/iq2](http://bofainternational.com/iq2)

# AD Oracle iQ2

## STANDARD KEY FEATURES

Hi-resolution 5" colour touch screen
SmartNAV layout
Multiple language options
Interface connectivity
Complete system pressure and filter monitoring
DeepPleat DUO pre-filter
HEPA and gas filter
Advanced carbon filter
Automatic flow control (AFC) technology
Reverse flow air (RFA) technology
Fully configurable alarms and warnings
Run hours displayed/real-time log
Black box event log
12 month data storage
Remote monitoring, control and diagnostics
Filter status warnings
Run safe operation
Remote diagnostics via USB
Multi voltage sensing

## OPTIONAL FEATURES

VOC (Volatile Organic Compounds) gas sensor
On board compressor
Different filter medias
Door open alarm
Pre-filter not fitted alarm
Alarm output connection alarm

## KEY TECHNICAL INFORMATION

Dimensions (H x W x D)	982 x 470 x 517 mm
Airflow / pressure	380m <sup>3</sup> /hr / 96mbar
Approvals	UKCA and CE



You'll benefit from software upgrades, providing additional features as they are developed.

Find out more:

[bofainternational.com/ad-oracle-iq2](https://bofainternational.com/ad-oracle-iq2)

# INTELLIGENT OPERATING SYSTEM (iQ)

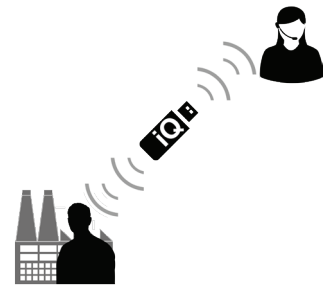


## Pioneering fume extraction.

Our award-winning Intelligent Operating System (iQ) brings multiple performance enhancements for higher efficiency of extraction, individual filter status monitoring and integral design features that combine to deliver a lower cost of ownership.

Most importantly, the iQ addresses the issue dreaded by most production teams - downtime - by minimising the potential for interrupting production for unplanned filter changes.

Sophisticated and advanced technology is inbuilt, providing a user-friendly and intuitive experience with the data being easy to access and analyse locally or remotely (from data downloaded via USB). It means that filter changes can be planned at a time to minimise or eliminate interruptions to production so businesses can continue as usual, as well as helping to avoid any costly or time-consuming service call-outs.



The iQ Operating System incorporates a method for monitoring the status of both the pre-filter and combined (main) filter. Pre blockage warnings provide operators with ample time to prepare for a change by identifying which filter needs replacing and when so the uncertainty and guesswork is removed.

A user-friendly design is consistent across all iQ products for a more uniform look in environments where multiple units are in use. The operating 'easy read' control panel is on the top of each unit on a sloping fascia front so the data is easy to view.



# DEEPPLEAT DUO

## PRE-FILTER

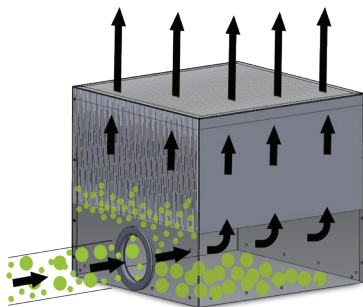


Save filter life and money.

The DeepPleat DUO is a patented long lasting pre-filter, which helps extend the life of your main filter and reducing the overall cost of ownership of your unit.

BOFA's unique patent-protected DeepPleat DUO pre-filter technology is designed to maximise filter life. It incorporates a large capacity drop-out chamber within the filter, along with an impressive surface area above the chamber to deal with a high volume and variety of particulate, ensuring optimised performance and filter life. Within the housing there is a sealed 200mm deep pleat layer of F8 media giving a surface area in excess of 6;12; and 30 sq metres.

Thanks to a specially moulded grommet style gasket situated within the drop out chamber the DeepPleat DUO is designed for easy and safer installation and replacement, which is particularly important as often harmful contaminants are captured within the filter.



The DeepPleat DUO is available in three different sizes, offering different drop-out chamber sizes and surface medium areas:

Product	Inlet size	Dropout chamber size	Surface media area	Filter media pleat size
AD Nano (+)	50mm	7.44 litres	6m <sup>2</sup>	150mm
AD Oracle iQ	75mm	16.2 litres	12m <sup>2</sup>	200mm
AD 500/1000/1500 iQ	125mm	58 litres	30m <sup>2</sup>	200mm
AD 2000 iQ	125mm	58 litres x2 (116 litres)	30m <sup>2</sup> x2 (60m <sup>2</sup> )	200mm x2 (400mm)
AD 4000 iQ	125mm	58 litres x3 (174 litres)	30m <sup>2</sup> x3 (90m <sup>2</sup> )	200mm x3 (600mm)

Throughout this brochure you will see icons next to products to show their key features:



#### **iQ2**

iQ2 combines field proven iQ reliability with a range of new and highly advanced feature enhancements. Easy to integrate. Intuitive to use. iQ2 has significant new user and productivity benefits. **See page 6 for more information.**

Find out more: [bofainternational.com/iq2](http://bofainternational.com/iq2)



#### **Intelligent Operating System (iQ)**

Our patent-protected award-winning Intelligent Operating System (iQ) performs at two distinct levels: operators benefit from the ease of operation and clarity of real time information and the system provides a cache of analytical data, enabling users to download performance and operating parameters for evaluation purposes. **See page 9 for more information.**

Find out more: [bofainternational.com/iq](http://bofainternational.com/iq)



#### **DeepPleat pre-filter**

The DeepPleat pre-filter consists of a pleated filter of 100mm depth or greater, allowing for increased surface area within a smaller area. This means BOFA filters last a long time and do not take up a large footprint.

Find out more: [bofainternational.com/deeppleat](http://bofainternational.com/deeppleat)



#### **DeepPleat DUO pre-filter**

Our patent-protected DeepPleat DUO pre-filter technology is designed to maximise filter life. It incorporates a large capacity drop-out chamber within the filter. Above this chamber is an impressive surface area to deal with high volumes and variety of particulate, ensuring optimised performance and filter life.

The DeepPleat DUO is designed for easy and safer installation and replacement, which is particularly important as often potentially harmful contaminants are captured within the filter. **See page 10 for more information**

Find out more: [bofainternational.com/deeppleatduo](http://bofainternational.com/deeppleatduo)



#### **HEPA filter**

Filters 99.997% of particles at 0.3 micron in size.

Find out more: [bofainternational.com/hepa](http://bofainternational.com/hepa)



#### **ACF: Advanced carbon filter**

ACF helps enable safer filtering of hazardous fumes. Contaminated air must remain in contact with the carbon bed for a period of time sufficient to ensure that no contaminants or odours are emitted ('dwell time'). Our design considers the balance between airflow rates and the type, depth and surface area of the carbon used to ensure suitability for the contaminants associated with the application and to ensure appropriate dwell times are achieved.

Our filters have been developed to filter contaminants and odours, eliminating the risk of bypass and / or tunnelling.

Find out more: [bofainternational.com/acf](http://bofainternational.com/acf)



#### **AFC: Automatic flow control**

AFC allows the operator to preset correct airflow rates for the specific application, subsequently maintaining this airflow. This generates lower noise levels and ensures further protection of HEPA filter.

Find out more: [bofainternational.com/afc](http://bofainternational.com/afc)



#### **RFA: Reverse flow air technology**

RFA enhances filter performance and ensures long filter life. It causes a fall in velocity and air direction change. Larger particulate falls out of the airstream into the drop out chamber. With less particulate entering the filter media the filter life is significantly increased. Contaminated air entering the drop out chamber is pulled vertically through the filters.

Find out more: [bofainternational.com/rfa](http://bofainternational.com/rfa)



#### **MVS: Multi voltage sensing unit**

Our MVS units automatically sense local voltage and automatically operate between 100-230V, for global use.



#### **PATENTED technology**

We invest in innovation and our products have a heritage of being tried, tested and trusted. We take great care in protecting our intellectual property and our integrity. Our product range includes aspects which are protected under patent copyright, design copyright, registered design and trade mark laws.



#### **SureCHECK quality standard**

In recognition of the importance of quality, health and safety and environmental management, we have created our own stringent SureCHECK quality standard, applied to every product we make.

Find out more: [bofainternational.com/surecheck](http://bofainternational.com/surecheck)



#### **ProTECT**

Our ProTECT service plan gives you peace of mind that your LEV systems are being maintained throughout their working life.

Find out more: [bofainternational.com/protect](http://bofainternational.com/protect)

Technical information in this brochure is correct at time of publishing. Please contact us for details.


## **TRAINING DESIGNED FOR YOU**

Free training modules delivered by our knowledgeable team direct to you.

For more information visit [bofainternational.com/bofa-academy](http://bofainternational.com/bofa-academy)







BOFA's ADVANTAGE range of laser fume extraction and filtration systems are designed for applications that generate particulate and gaseous volatile organic compounds (VOCs) within the laser coding, marking, cutting and engraving industries. Our Base units have been designed so that a number of manufacturers' laser engravers can sit on top of the extractor, effectively, doubling up as a work station.



# LASER FUME EXTRACTION

## ADVANTAGE RANGE

By maintaining a dust-free operating area, our systems help to protect valuable equipment, maintain a higher quality mark and reduce the number of rejects and contaminants.

## APPLICATIONS

Deep laser engraving

Laser cleaning

Laser coding

Laser cutting

Laser drilling

Laser engraving

Laser etching

Laser kiss cutting

Laser marking

Laser micro-machining

Laser pairing

Laser perforating

Laser welding

Traceability and date codes

Web scoring



## AD ACCESS FUME EXTRACTOR



A compact system for light duty laser marking, coding and engraving applications. The AD Access fume extractor combines economic ownership with performance to match the small laser user, helping operator working conditions and product quality.

A three-stage filter condition indicator is included as a standard feature.

**Approvals** UKCA and CE | cUL | UL\*

For full product features - see page 38.

Dimensions 505 x 335 x 315mm  
19.88 x 13.19 x 12.40"

Airflow/Pressure 180m<sup>3</sup>/hr / 30mbar  
106cfm / 30mbar

Technology



**Datasheet download**

[bofainternational.com/ad-access](http://bofainternational.com/ad-access)

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon  
filter technology

## AD FUSION FUME EXTRACTOR

The AD Fusion fume extractor has been designed to work with the new generation of low cost laser systems. It provides high performance at affordable prices and is ideally matched with smaller laser systems.

**Approvals** UKCA and CE

For full product features - see page 38.



Dimensions	590 x 380 x 440mm 23.2 x 38.6 x 17.3"
Airflow/Pressure	285m <sup>3</sup> /hr / 24mbar 167cfm / 24mbar

Technology



**Datasheet download**  
[bofainternational.com/ad-fusion](http://bofainternational.com/ad-fusion)



## AD 250 FUME EXTRACTOR



The AD 250 fume extractor provides a cost effective solution for light duty applications. This compact and extremely quiet system is ideal for use in schools, sign making workshops, small scale industrial environments and light laser coding applications.

**Approvals** UKCA and CE | cUL | UL\*

For full product features - see page 38.

Dimensions 570 x 405 x 465mm  
23.23 x 15.94 x 18.31"

Airflow/Pressure 180m<sup>3</sup>/hr / 30mbar  
106cfm / 30mbar

Technology



**Datasheet download**

[bofainternational.com/ad-250](http://bofainternational.com/ad-250)

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon  
filter technology

## AD 350 FUME EXTRACTOR

The quiet and compact AD 350 fume extractor effectively filters potentially harmful fumes and particulate created during light duty laser marking, coding and engraving applications making it ideal for use in schools, sign making workshops and small scale industrial environments.

**Approvals** UKCA and CE | cUL | UL\*

For full product features - see page 38.

*Compatible with the FireBOX GA and FireBOX MA and Spark Arrestor 2 - See page 36-37*



Dimensions 570 x 405 x 465mm  
23.23 x 15.94 x 18.31"

Airflow/Pressure 380m<sup>3</sup>/hr / 96mbar  
223cfm / 96mbar

### Technology



**Datasheet download**  
[bofainternational.com/ad-350](http://bofainternational.com/ad-350)

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.



## AD NANO FUME EXTRACTOR



The AD Nano fume extractor is ideal for small scale industrial environments and light to medium laser coding applications. The reverse flow air technology enhances filter performance and helps with long filter life, with its DeepPleat DUO filter technology.

**Approvals** UKCA and CE

For full product features - see page 38.

Dimensions 790 x 360 x 420mm  
31.1 x 14.17 x 16.54"

Airflow/Pressure 170m<sup>3</sup>/hr / 30mbar  
100cfm / 30mbar

Technology



**Datasheet download**

[bofainternational.com/ad-nano](http://bofainternational.com/ad-nano)

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter




ACF  
Advanced carbon  
filter technology

## AD NANO+ FUME EXTRACTOR

This compact 'go anywhere' fume extraction system is feature-packed for big performance in small scale industrial sites and light laser coding applications. Incorporating many of the features found on our larger systems, the AD Nano+ is a cost effective solution for light to medium duty applications, making it the ideal choice for installations where floor space is limited.

The use of an auto-voltage sensing turbine means that this unit can be used anywhere in the world.

**Approvals** UKCA and CE

Dimensions	790 x 360 x 420mm 31.1 x 14.17 x 16.54"
Airflow/Pressure	300m <sup>3</sup> /hr / 96mbar 176cfm / 96mbar
Technology	
<p><b>Datasheet download</b>  <a href="http://bofainternational.com/ad-nano-plus">bofainternational.com/ad-nano-plus</a></p>	



For full product features - see page 38.





## AD UNIVERSAL FUME EXTRACTOR

This compact system is ideal for light to medium small scale industrial environments.

**Approvals** UKCA and CE | UL\*

For full product features - see page 38.



Dimensions	625 x 385 x 525mm 24.61 x 15.16 x 20.67"
Airflow/Pressure	380m <sup>3</sup> /hr / 96mbar 223cfm / 96mbar

### Technology



### Datasheet download

[bofainternational.com/ad-universal](http://bofainternational.com/ad-universal)

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon  
filter technology



## AD ORACLE SA iQ FUME EXTRACTOR

This compact laser fume extractor incorporates a powerful range of unique features into one unit. It uses a smaller pre-filter to the AD Oracle iQ, but includes all the other features, making it ideal for lighter use applications.

**Approvals** UKCA and CE | cUL | UL\*

For full product features - see page 38.

*Compatible with the FireBOX GA and FireBOX MA and Spark Arrestor 2 - See page 36-37*



**Dimensions** 730 x 430 x 515mm  
28.7 x 17 x 20.3"

**Airflow/Pressure** 380m<sup>3</sup>/hr / 96mbar  
223cfm / 96mbar

### Technology



**Datasheet download**  
[bofainternational.com/ad-oracle-sa-iq](https://bofainternational.com/ad-oracle-sa-iq)

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.





## AD ORACLE iQ FUME EXTRACTOR

The AD Oracle iQ fume extractor combines a powerful range of unique features into one compact unit. This versatile system can be used across a range of laser applications and the revolutionary auto-voltage sensing blower automatically self adjusts to run on any voltage worldwide.

Our inline AD Cyclone has been designed to separate lower particle sizes during laser marking process.

**Approvals** UKCA and CE | cUL | UL\*

*Compatible with: AD Cyclone, FireBOX GA and FireBOX MA and Spark Arrestor 2 - See page 35-37*

For full product features - see page 38.

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.

Dimensions 975 x 455 x 505mm  
38.39 x 17.91 x 19.88"

Airflow/Pressure 380m<sup>3</sup>/hr / 96mbar  
223cfm / 96mbar

### Technology



### Datasheet download

[bofainternational.com/ad-oracle-iq](http://bofainternational.com/ad-oracle-iq)

OUR LEADING TECHNOLOGY



iQ2  
Intelligent Operating System (iQ2)



iQ  
Intelligent Operating System (iQ)



DeepPleit  
DeepPleit pre-filter



DeepPleit DUO  
DeepPleit DUO pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon filter technology

## AD ORACLE iQ2 FUME EXTRACTOR

The next generation of fume extraction, the AD Oracle iQ2 fume extractor combines field proven iQ technology with a range of new and highly advanced features, you'll be ahead of the competition when it matters most. It will benefit from software upgrades, providing additional features as they are developed.

See pages 6-7 for more information about iQ2.

Our inline AD Cyclone has been designed to separate lower particle sizes during laser marking process.

**Approvals** UKCA and CE

*Compatible with: AD Cyclone, FireBOX GA and FireBOX MA and Spark Arrestor 2 - See page 35-37*



Dimensions 982 x 470 x 516mm  
38.66 x 18.5 x 20.3"

Airflow/Pressure 380m<sup>3</sup>/hr / 96mbar  
223cfm / 96mbar

### Technology



### Datasheet download

[bofainternational.com/ad-oracle-iq2](http://bofainternational.com/ad-oracle-iq2)

For full product features - see page 38.



**RFA**  
Reverse flow air  
technology



**AFC**  
Automatic flow  
control technology



**MVS**  
Multi voltage  
sensing unit



**PATENTED**  
Patented  
technology



**SureCHECK**  
SureCHECK quality  
standard



**PROTECT**  
ProTECT service  
plan

# LASER FUME EXTRACTION ADVANTAGE RANGE



## AD 500 iQ | 1000 iQ | 1500 iQ FUME EXTRACTORS

These mid to high end laser fume extraction systems combine extremely large filter capacity with high airflow and pressure rates, making them the ideal choice for heavy duty applications that generate large amounts of particulate and gaseous organic compounds.

Performance has been further enhanced with the inclusion of several features including BOFA's acclaimed patented iQ Operating System.

**Approvals** UKCA and CE | cUL | UL\*

For full product features - see page 38.

*The AD 500 iQ and AD 1000 iQ are compatible with the Spark Arrestor 2 - See page 38*

Dimensions	1205 x 615 x 790mm 47.44 x 24.21 x 31.1"
<b>AD 500 iQ</b> Airflow/Pressure	550m <sup>3</sup> /hr / 100mbar 324cfm / 100mbar
<b>AD 1000 iQ</b> Airflow/Pressure	850m <sup>3</sup> /hr / 100mbar 500cfm / 100mbar
<b>AD 1500 iQ</b> Airflow/Pressure	1250m <sup>3</sup> /hr / 100mbar 735cfm / 100mbar

### Technology



### Datasheet download

[bofainternational.com/ad-500-iq](http://bofainternational.com/ad-500-iq)  
[bofainternational.com/ad-1000-iq](http://bofainternational.com/ad-1000-iq)  
[bofainternational.com/ad-1500-iq](http://bofainternational.com/ad-1500-iq)

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon  
filter technology

## AD 2000 iQ FUME EXTRACTOR

The AD 2000 iQ fume extractors delivers superior and measurable performance, ensuring airflow and filtration is maintained even when particulates start to build up. The dual filter system creates maximum capacity while the three-stage filtration process ensures peak performance. This makes it suitable for the most demanding and complex installations, so you can rely on extended filter life, together with effective removal of fumes and particulates.

It's user friendly too, with a design that makes easy work of filter changes. The easy to read and access control display panel is conveniently located on top of the unit.

The AD 2000 iQ's design also permits greater flexibility of different exhaust installations and different configurations allowing recirculation via the rear panel or externally vented hose connection systems.

**Approvals** UKCA and CE

For full product features - see page 38.



Dimensions 1277 x 1318 x 1013mm  
50.3 x 51.9 x 39.9"

Airflow/Pressure 2500m<sup>3</sup>/hr / 96mbar  
1295cfm / 96mbar

### Technology



### Datasheet download

[bofainternational.com/ad-2000-iq](http://bofainternational.com/ad-2000-iq)





## AD 4000 iQ FUME EXTRACTOR

The AD 4000 iQ fume extractor delivers superior and measurable performance, ensuring airflow and filtration is maintained even when particulates start to build up from the triple DeepPleat DUO pre-filter and combined filter setup. This makes it suitable for the most demanding and complex installations, so you can rely on extended filter life, together with effective removal of fumes and particulates.

For full product features - see page 38.

Dimensions 1300 x 1955 x 1100mm  
51.18 x 76.97 x 43.31"

Airflow/Pressure 3600m<sup>3</sup>/hr / 44mbar  
2119cfm / 44mbar

### Technology



### Datasheet download

[bofainternational.com/ad-4000-iq](http://bofainternational.com/ad-4000-iq)

It's user friendly too, with a design that makes easy work of filter changes. The easy to read and access control display panel is conveniently located on top of the unit.

The AD 4000 iQ's design also permits greater flexibility of different exhaust installations. Different exhaust configurations allow recirculation via the rear panel or externally vented hose connection systems.

**Approvals** UKCA and CE

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon  
filter technology

## AD 4000 FUME EXTRACTOR

The AD 4000 laser fume extraction unit combines large filter capacity with high airflows. This combination makes the AD 4000 ideal for large laser engravers, laser cutters as well as multiple laser coding installations.

Easily accessible filters are accommodated by the uniquely styled gas spring assisted 'gull winged' doors, which allow for maximum space and ease when changing filters.

Unit interfaces such as stop/start and system failure are available as options.

**Approvals** UKCA and CE



Dimensions 1475 x 1450 x 1500mm  
50.2 x 76.7 x 43.3"

Airflow/Pressure 4000m<sup>3</sup>/hr / 30mbar  
2354cfm / 30mbar

### Technology

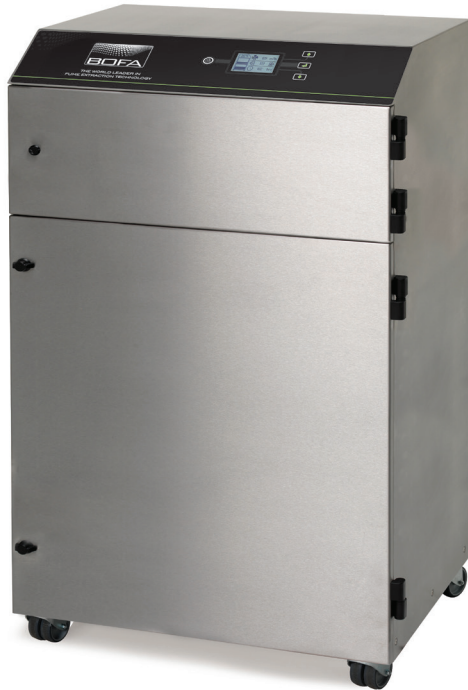


**Datasheet download**  
[bofainternational.com/ad-4000](http://bofainternational.com/ad-4000)

For full product features - see page 38.







## AD PVC iQ FUME EXTRACTOR

The AD PVC iQ fume extraction system has been designed to effectively deal with the corrosive nature of the fumes generated when lasering PVC materials.

The latest design specification includes many of the features associated with our AD Oracle iQ (page 22) model as standard but in addition all internally exposed surfaces have been coated to resist the corrosive nature of the fume and each unit is fitted with HCL and VOC sensors which continually monitor the exhaust air of the unit giving added safety assurance.

**Approvals** UKCA and CE | cUL | UL\*

Dimensions	1090 x 570 x 600mm 42.91 x 22.44 x 23.62"
Airflow/Pressure	350m <sup>3</sup> /hr / 96mbar 206cfm / 96mbar
Technology	
<p><b>Datasheet download</b>  <a href="http://bofainternational.com/ad-pvc-iq">bofainternational.com/ad-pvc-iq</a></p>	

For full product features - see page 38.

\* Tested to UL and cUL standards, but testing may be provided by alternate nationally recognised test laboratories. Certain product configurations may affect the UL certification. Please speak to your sales representative.

OUR LEADING TECHNOLOGY



iQ2  
Intelligent Operating System (iQ2)



iQ  
Intelligent Operating System (iQ)



DeepPleat  
DeepPleat pre-filter



DeepPleat DUO  
DeepPleat DUO pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon filter technology



## AD Base 1 Oracle FUME EXTRACTOR

Suitable for a range of lasers, the AD Base 1 Oracle fume extractor combines a DeepPleat DUO pre-filter and auto-voltage blower in a compact base system. BOFA's easi-seal filter location makes filter change easy, quick and safe.

As with all our Base systems, this unit has the option of an onboard compressor for a compact installation.

**Approvals** UKCA and CE

For full product features - see page 38.



Dimensions 7905 x 735 x 740mm  
31.1 x 28.94 x 29.13"

Airflow/Pressure 380m<sup>3</sup>/hr / 96mbar  
223cfm / 96mbar

### Technology



### Datasheet download

[bofainternational.com/ad-base-1-oracle](http://bofainternational.com/ad-base-1-oracle)



## AD Base 2 Oracle FUME EXTRACTOR



Adapting the AD Base 1 Oracle fume extractor, this unit sits lower to allow larger bed lasers to be placed securely on top whilst giving a direct extraction system. This system also benefits from a DeepPleat DUO pre-filter and multi voltage sensing unit.

As with all our Base systems, this unit has the option of an onboard compressor for a compact installation.

**Approvals** UKCA and CE

For full product features - see page 38.

Dimensions 550 x 1060 x 810mm  
21.65 x 41.74 x 31.89"

Airflow/Pressure 380m<sup>3</sup>/hr / 96mbar  
223cfm / 96mbar

### Technology



### Datasheet download

[bofainternational.com/ad-base-2-oracle](http://bofainternational.com/ad-base-2-oracle)

OUR LEADING  
TECHNOLOGY



iQ2  
Intelligent Operating  
System (iQ2)



iQ  
Intelligent Operating  
System (iQ)



DeepPleat  
DeepPleat  
pre-filter



DeepPleat DUO  
DeepPleat DUO  
pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon  
filter technology

## AD Base 3 FUME EXTRACTOR

The AD Base 3 fume extractor is designed for the smaller Universal Versa Laser. The optional onboard compressor makes this a compact installation.

**Approvals** UKCA and CE

For full product features - see page 38.



Dimensions      775 x 510 x 680mm  
30.51 x 20.08 x 26.77"

Airflow/Pressure    180m<sup>3</sup>/hr / 30mbar  
105cfm / 30mbar

### Technology



### Datasheet download

[bofainternational.com/ad-base-3](http://bofainternational.com/ad-base-3)

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## AD Base C180 FUME EXTRACTOR



Bespoke fume extraction unit tailored to match the GCC C180 laser engraver. The dimensions of the unit allow the C180 to fit perfectly onto the extractor, effectively doubling it up as a work station. The unit is also offered with an onboard air compressor to provide the laser with its air assist requirements and comes complete with extraction hose kit and compressor link up on compressor models.

**Approvals** UKCA and CE

For full product features - see page 38.

Dimensions 795 x 720 x 675mm  
31.3 x 28.3 x 26.6"

Airflow/Pressure 180m<sup>3</sup>/hr / 30mbar  
105cfm / 30mbar

Technology



**Datasheet download**

[bofainternational.com/ad-base-c180](https://bofainternational.com/ad-base-c180)



## AD Base Z FUME EXTRACTOR

The AD Base Z fume extractor has been designed specifically for the Epilog Zing laser engraver. The dimensions of the unit allow the Zing to fit perfectly onto the extractor, effectively doubling it up as a work station. The distinctive blue finish has been matched with the blue ends of the laser to give a stylish installation.

The unit is also offered with an onboard air compressor to provide the laser with its air assist requirements. All units come complete with extraction hose kit and compressor link up on compressor models.



**Approvals** UKCA and CE

Dimensions      780 x 780 x 600mm  
                          30.71 x 30.71 x 23.62"

Airflow/Pressure    180m<sup>3</sup>/hr / 30mbar  
                              105cfm / 30mbar

Technology

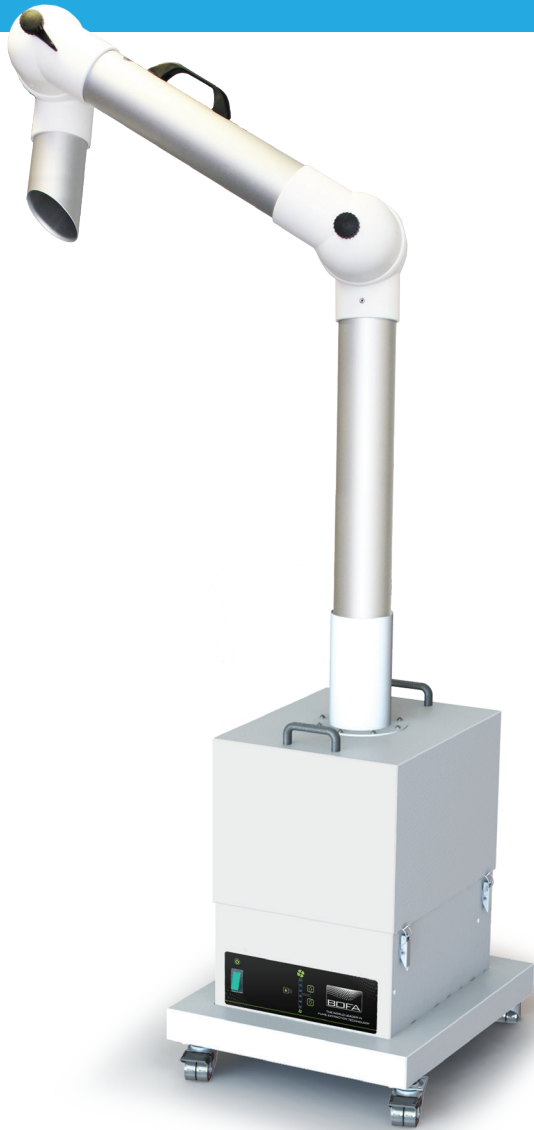


**Datasheet download**

[bofainternational.com/ad-base-z](http://bofainternational.com/ad-base-z)

For full product features - see page 38.





## Mobile FumeKART FUME EXTRACTOR

The FumeKART is the ideal portable air extraction and filtration unit and can be applied to a variety of applications.

Designed to filter dust particles, weld fumes, mold spores, solvent vapours and other pollutants from the work environment, the FumeKART is easy to operate and maintain and provides the additional benefit of being fully portable.

User will have flexibility and the assurance of high performance filtration. A filter condition indicator is included as a standard feature, together with three-stage filtration: pre-filter, HEPA and gas filter.

### Approvals UKCA and CE

Dimensions	875 x 475 x 430mm 37.4 x 18.7 x 17"
Airflow/Pressure	380m <sup>3</sup> /hr / 100mbar 223cfm / 100mbar

#### Technology



#### Datasheet download

[bofainternational.com/mobile-fumekart](http://bofainternational.com/mobile-fumekart)

For full product features - see page 38.

OUR LEADING TECHNOLOGY



iQ2  
Intelligent Operating System (iQ2)



iQ  
Intelligent Operating System (iQ)



DeepPleat  
DeepPleat pre-filter



DeepPleat DUO  
DeepPleat DUO pre-filter



HEPA  
HEPA filter



ACF  
Advanced carbon filter technology



## INLINE FILTERS

### AD CYCLONE

Laser marking generates a range of particle sizes from 0.1 micron upwards so standard cyclone separators are not suitable.

BOFA's inline cyclone is designed to operate more efficiently at these lower particle sizes.

The cyclone separator has been designed specifically for use with the AD Oracle iQ and AD Oracle iQ2 (see pages 22-23) and is installed



Dimensions 800 x 300 x 140mm  
31.5 x 11.81 x 5.51"

**Datasheet download**  
[bofainternational.com/ad-cyclone](http://bofainternational.com/ad-cyclone)

between the laser extraction point and the extractor. The airflow generated by the extraction unit powers the cyclone.

**Approvals** UKCA and CE

### ILF 300 / 600 / 1000



The BOFA inline pre-filters have been designed specifically for applications that generate high amounts of dust or particulate.

The filter unit is positioned alongside the main BOFA fume filtration system to increase the overall filter capacity and extend the life of the main, more expensive filters.

A range of application dependent filter types and configurations are available on request.

**Approvals** UKCA and CE

#### ILF 300



Dimensions 796 x 638 x 328mm  
31.34 x 25.12 x 12.92"

**Datasheet download**  
[bofainternational.com/ilf-300](http://bofainternational.com/ilf-300)

#### ILF 600



Dimensions 820 x 631 x 635mm  
32.28 x 24.84 x 25"

**Datasheet download**  
[bofainternational.com/ilf-600](http://bofainternational.com/ilf-600)

#### ILF 1000



Dimensions 650 x 617 x 763mm  
25.6 x 24.3 x 30"

**Datasheet download**  
[bofainternational.com/ilf-1000](http://bofainternational.com/ilf-1000)





## FireBOX GA/MA self-extinguishing inline pre-filter

In the rare event that a burning ember is drawn into the fume extraction unit, there is the possibility that debris in the filters could ignite. Although any resultant fire would typically be retained within the fume extraction unit, this would cause significant damage and in extreme circumstances the risk may extend beyond the extraction unit. For processes where such risks have been identified, additional protection in the form of an inline firebox is an additional precaution.

**Approvals** UKCA and CE



### WHICH PRODUCT DO YOU NEED?

The FireBOX GA is designed for general applications.

The FireBOX MA is designed specifically for metal-based applications.

Speak to your sales representative to ensure you chose the right system.

#### FireBOX GA/MA



For added safety and protection from fire. The built-in temperature controller can be set so when a 10°C temperature rise is detected, the FireBOX will activate the isolating valves and switch off the power to the extraction unit, suppressing the airflow to the FireBOX and reducing the speed of fire. If this does not suppress the fire and the temperature rises another 10°C then the fire extinguisher will be activated.

Ideally paired with AD Oracle SA iQ; AD Oracle iQ; and AD Oracle iQ2; (page 21-23).

**Dimensions** 1186 x 480 x 600mm  
46.7 x 19 x 24"  
(including beacon)

**Airflow** Up to 380m<sup>3</sup>/hr  
Up to 223cfm

**Datasheet download**  
[bofainternational.com/firebox-ga](http://bofainternational.com/firebox-ga)  
[bofainternational.com/firebox-ma](http://bofainternational.com/firebox-ma)







## Spark Arrestor 2

BOFA's Spark Arrestor 2 unit effectively prevents potentially damaging burning particulates, generated during laser marking processes, from entering the fume extraction unit.

Hot burning particulate is transported through the specially designed plates positioned within the airflow, slowing the burning particulate down until it finally drops into the removeable drop-out chamber, so protecting the fume extractor.



Dimensions 883 x 400 x 553mm  
34.76 x 15.75 x 21.77"

**Datasheet download**  
[bofainternational.com/spark-arrestor-2](http://bofainternational.com/spark-arrestor-2)

**Approvals** UKCA and CE



## LASER COOLING UNITS

Our AD 200 CU is an electrically driven, cooling air unit. It supplies cool, filtered air to both the laser and power supply module. This clean, cool air ensures optimal laser performance and reliability.

The AD 350 CU is designed to supply cool, filtered air to both the laser and power supply module. This clean, cool air ensures optimal laser performance and reliability. It can also be used as a seal to increase the IP rating of the laser.

### AD 200 CU



Dimensions 260 x 250 x 285mm  
10.2 x 9.9 x 11.2"

**Datasheet download**  
[bofainternational.com/ad-200-cu](http://bofainternational.com/ad-200-cu)

**Approvals** UKCA and CE

### AD 350 CU



Dimensions 395 x 380 x 380mm  
15.55 x 14.96 x 14.96"

**Datasheet download**  
[bofainternational.com/ad-350-cu](http://bofainternational.com/ad-350-cu)

**Approvals** UKCA and CE

## PIPEWORK

We offer a wide range of pipework available in 50mm, 75mm, 110mm, 125mm.

Speak to your sales representative to ensure you get the right pipework for your system.



# PRODUCT FEATURES

STANDARD FEATURES

OPTIONAL FEATURES

	AD Access	AD Fusion	AD 250	AD 350	AD Nano	AD Nano+	AD Universal	AD Oracle SA IQ	AD Oracle IQ	AD Oracle IQ2	AD 500 IQ	AD 1000 IQ	AD 1500 IQ	AD 2000 IQ	AD 4000 IQ	AD 4000	AD PVC IQ	AD Base 1 Oracle	AD Base 2 Oracle	AD Base 3	AD Base C180	AD Base Z	Mobile FumeKART
Intelligent Operating System (iQ)							✓	✓		✓	✓	✓	✓	✓	✓								
Intelligent Operating System (iQ2)									✓														
Filter condition indicator	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
High airflow & pressure rates				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓
Long life, low cost replacement filters	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Digital speed control				✓																			✓
Easi-seal filter location					✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓				
Auto sensing voltage (100-230V) for global use				✓		✓	✓	✓	✓								✓	✓	✓				✓
Automatic flow control system		✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Lockable castors		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unique gas spring assisted 'gull winged' doors for filter access																✓							
Acid resistant coating																	✓						
HEPA filter technology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UKCA / CE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UL*	✓		✓	✓			✓	✓		✓	✓	✓					✓						
cUL*	✓		✓	✓			✓	✓		✓	✓	✓					✓						
Brushless motor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SureCHECK quality standard	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ProTECT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VOC gas sensor (Volatile Organic Compound)	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓
Remote stop/start interface	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓
Filter change/system fail signal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Onboard compressor								✓	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	
Variety of arms/hoods																							✓

Product availability may vary by region. Please contact BOFA with any questions.

## *Can't find an accessory that fits your requirements?*

We have an extensive range of accessories available. On request we can create bespoke accessories to complement our full range of BOFA dust and fume extraction systems.

Speak to our knowledgeable team today to discuss which BOFA products are most appropriate for your process.



A Donaldson Company

A WORLD LEADER IN FUME  
EXTRACTION TECHNOLOGY

BOFA International Ltd. - UK. Tel. +44 (0) 1202 699 444 Email. [sales@bofa.co.uk](mailto:sales@bofa.co.uk)

- Germany. Tel. +49 (0) 40 739 3735-15 Email. [vertrieb@bofa.co.uk](mailto:vertrieb@bofa.co.uk)

BOFA Americas, Inc Tel. +1 (618) 205 5007 Email. [sales@bofaamericas.com](mailto:sales@bofaamericas.com)

Web. [bofainternational.com](http://bofainternational.com)