

DFS-i Series Fume Extractor

Purification of micro-nano-level smoke particles, harmful gases and irritating odors in **laser processing**, **PCB production**, **semiconductor production**, **additive manufacturing & 3D printing**, etc.



PURE-AIR TECH----Define New Standards For Clean Production And Protect The Respiratory Health Of Thousands Of Employees!

With more than 10 core patented technologies that lead the industry, Pure-Air are committed to creating the ultimate clean solutions for the production environment of 30+ industries around the world.

From high-precision laser processing, semiconductor manufacturing, 3D printing, to the booming lithium-ion photovoltaic new energy, 3C electronics, metal processing, to food and pharmaceutical production, inkjet printing, etc. that are related to people's livelihood, we deeply empower 5,000+ well-known domestic and foreign companies in 70+ countries and regions. Define new standards for clean production and protect the respiratory health of thousands of employees!

Our mission: Use green technology to eradicate pollution hazards in the production process, protect employees' respiratory health in all aspects, seamlessly connect efficient production with a sustainable future, and make cleanliness a powerful engine for high-quality development of enterprises.





1

Integrated Design:

【Dynamic And Intelligent Space Revolution】 -- Subverting the traditional 40% space occupancy.

(1) Spiritual Purification:

Innovative design, compact body, anti-collision and anti-pressure. Narrow workshop, multi-station sharing, easy to adapt.

(2) Cleanliness That Grows With The Production Line:

Space saving, allowing clean productivity to extend freely with the production line, achieving a win-win situation of efficiency and convenience.





2

Dynamical System:**【Super Power Intelligent Drive Future】**

-- 30,000 hours of maintenance-free , suction soared 3 times!

(1) Eddy Pressure Technology:

10 years of research and development precipitation
high negative pressure brushless fan 0.3 seconds
speed dust, energy consumption straight down 25%.

(2) Intelligent Working Condition Matching:

With intelligent drive control module, real-time matching
working condition requirements. The negative pressure
purification is strong and does not decay, and the
workshop respiratory health is protected online 24 hours.

3

Control System :**【Clean Wind Intelligent System Redefines Purification】**

--Traditional purifiers can not do, we solve everything.

- (1) **Industrial Touch Center:** The data is clear and visible, the parameters are controlled by a key, and the production rhythm is at your fingertips.
- (2) **Full Scene Intelligent Interconnection:** I/O, RS-485, wifi multi-port coverage, smart workshop control seamless connection.
- (3) **Real Air Volume Real-Time Display:** Accurate sensors and intelligent algorithms, air volume / negative pressure real-time display, farewell to traditional analog data.
- (4) **Ever-clean Smart Tech:** Filter block, automatic compensation air volume. The smoking effect is always the same, and zero smoke and dust diffuse in the workshop.





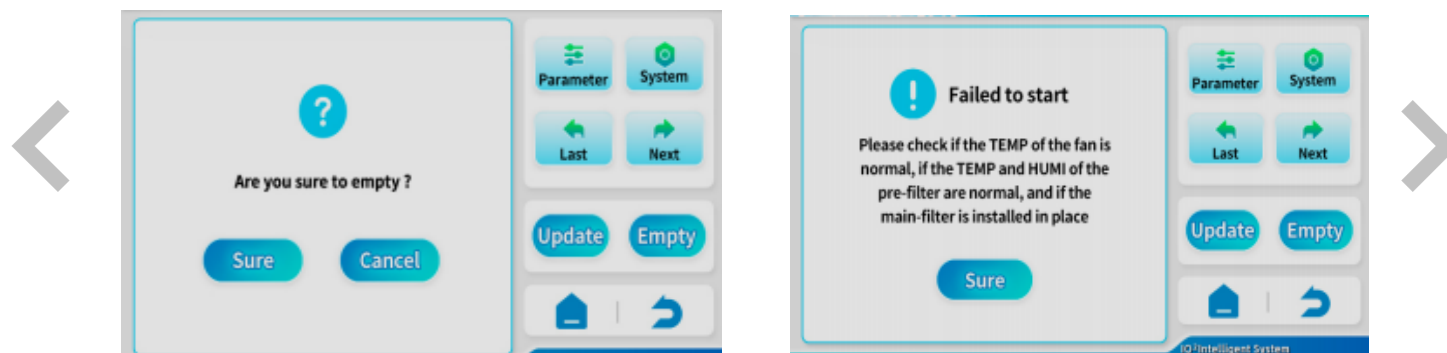
3

Control System :

【Clean Wind Intelligent System Redefines Purification】

--Traditional purifiers can not do, we solve everything.

- (5) **Air Quality Guard:** Optional PM2.5 / VOC / O3 real-time monitoring, exhaust quality at a glance, environmental compliance without worries.
- (6) **Filter Health Manager:** Accurate display and warning of each layer of filter status, intelligent reminder of replacement time, zero shutdown risk.
- (7) **Safety Double Insurance:** Temperature and humidity exceed the standard automatic shutdown, prevent fire / filter element damage hazards.
- (8) **Evolutionary System:** TF card one-click upgrade, continuous performance optimization, equipment is always one step ahead.



4

Purification System:**【Multi-layer Purification Direct Row Worry-free】**

--The cost of consumables drops by 50%, and the life is extended by 30%.

(1) Three Times The Filter Area Filter Element:

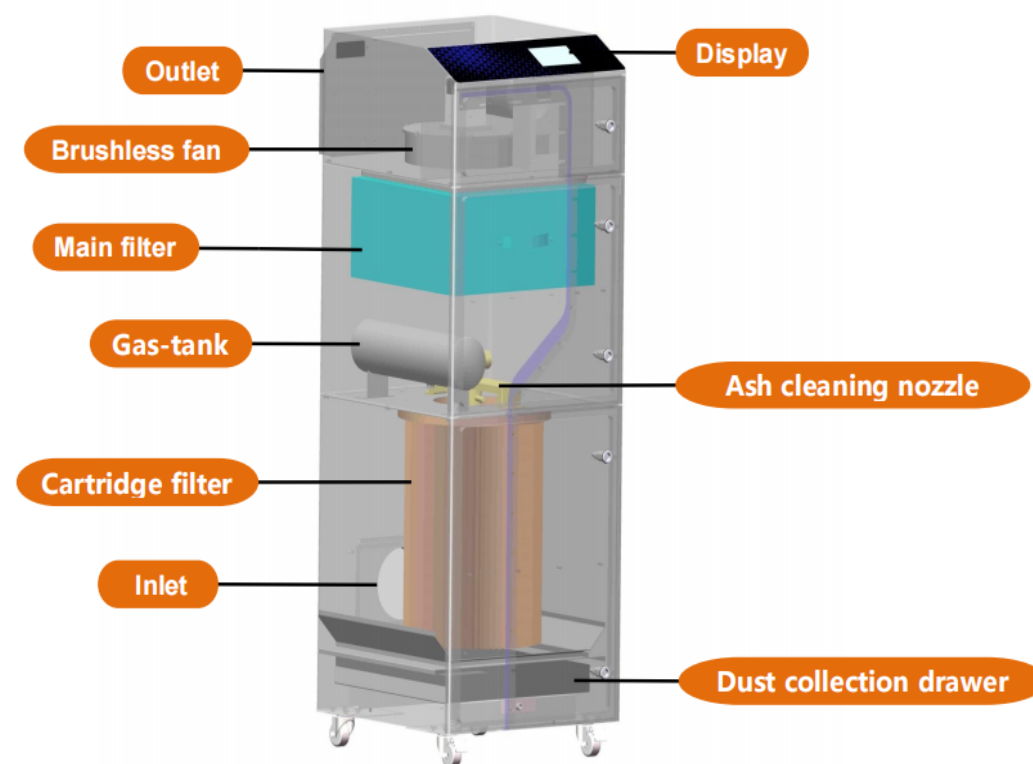
The surface filtration area of the filter element reaches 10-30 square meters, and the smoke and dust capacity is three times larger than before.

(2) Progressive Purification System:

Large particles, fine dust, harmful gases layer by layer break, so that efficient production and employee health zero conflict, indoor direct discharge pollution-free.

(3) Quick Release Design:

1-minute core replacement, perfect air tightness, further reducing maintenance cost.



Model		PA-DFS800i	PA-DFS1600i	PA-DFS2400i
Air volume		800m³/hr	1600m³/hr	2400m³/hr
Pressure		10000Pa	10000Pa	10000Pa
Input power		1.3kw	2.3kw	3.5kw
Voltage		90v-110v / 210-257v, 1ph, 50/60Hz		
Filter	Pre filter	Flame retardant PTFE cartridge filter		
	Main filter	H14 deeppleat filter (99.997% @0.3um)		
		Treated activated carbon (Weight 12-30kgs approx)		
Working noise *		< 62dBA	< 65dBA	< 68dBA
Machine size		500*597*1439mm	670*834*1705mm	750*907*1698mm
Machine N.W		121kg	200kg	237kg
Inlet size		100mm / 125mm	150mm	200mm
Chassis technology		Powder coated mild steel / Brushed stainless steel		
*Measure the average value at a distance of 1 meter from the machine under normal usage conditions.				

1 Equipment Selection

(1) How to choose the right purifier for the dust, harmful gases and irritating smells produced by processing?

Before equipment selection, please provide equipment type, equipment processing format, processing materials, daily working hours and other parameters, we will customize the adaptation plan for you!

(2) Do fume extractor need explosion-proof design?

In which scenarios must explosion-proof models be selected?

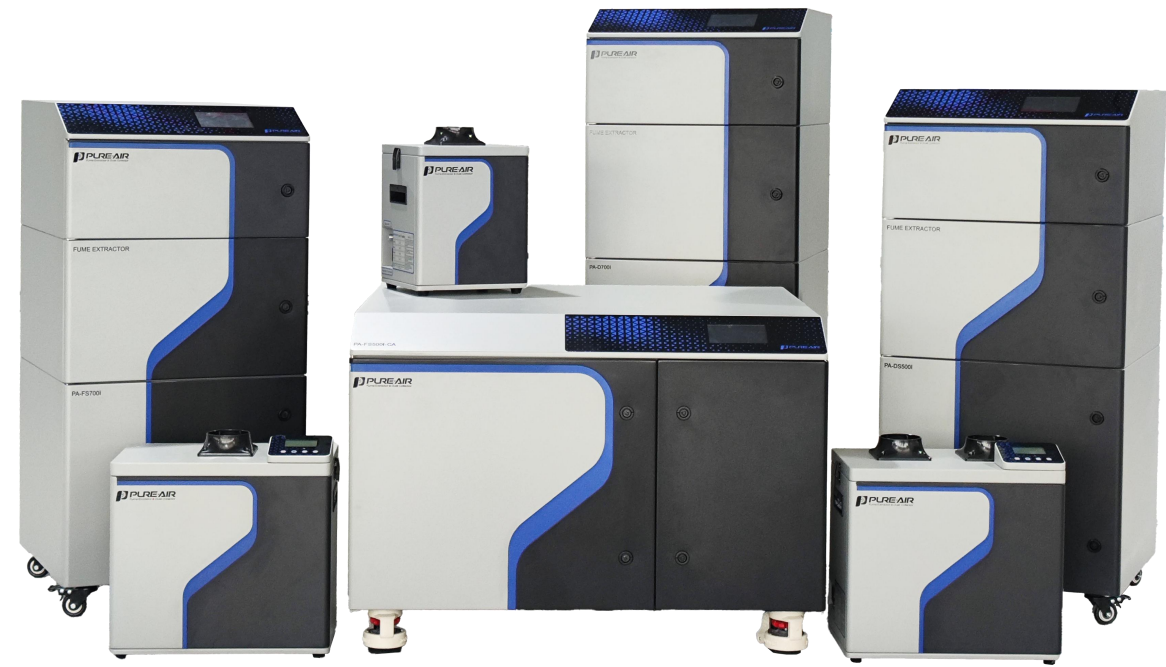
If the processing materials are flammable metals such as aluminum magnesium alloy and titanium alloy, or flammable gases exist in the workshop, explosion-proof models must be used.

In other scenarios, common models can be used.

(3) What are the differences in the configuration of the fume extractor when dealing with smoke from different materials (such as metal, plastic, wood)?

The dust of processing metal materials should be matched with spark catcher + flame retardant filter element.

It is recommended to adopt a multi-stage filtration combination design for processing plastic / wood smoke, and a moisture proof design for high humidity smoke.





2 Filter Element Use And Replacement

(1) How long is the filter replacement cycle? How do I know if it needs to be replaced?

Under different processing frequencies and processing conditions of different materials, the replacement cycle of the filter element is different. PURE-AIR fume extractor has a filter status monitoring system, so customers can easily know when the filter needs to be replaced.

(2) What may be the cause of the rapid blockage of the filter element?

If caking may be caused by pre-treatment failure (for example, sparks are not intercepted and burn through the filter element), excessive dust concentration, or high ambient humidity it is necessary to check the compatibility of the pre-filtration system with the working condition.

(3) Can the filter element be cleaned and reused?

Only metal sintered filter element can be cleaned limited times, HEPA/PTFE coated filter element can not be cleaned, forced washing will destroy the filter structure.

(4) Is there a filter life warning function?

The PURE-AIR clean wind intelligent purification system has the function of real-time display of filter status, real-time reminder of filter status, and support for early replacement reminder.

3 Voltage And Compatibility

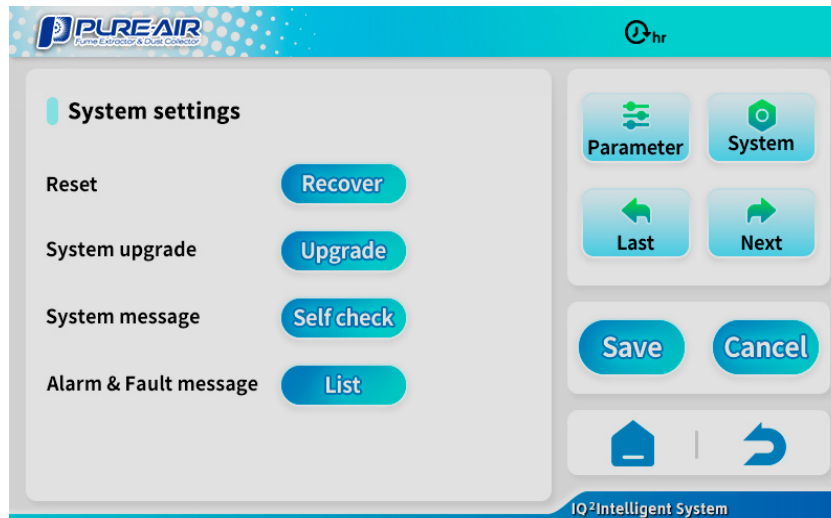
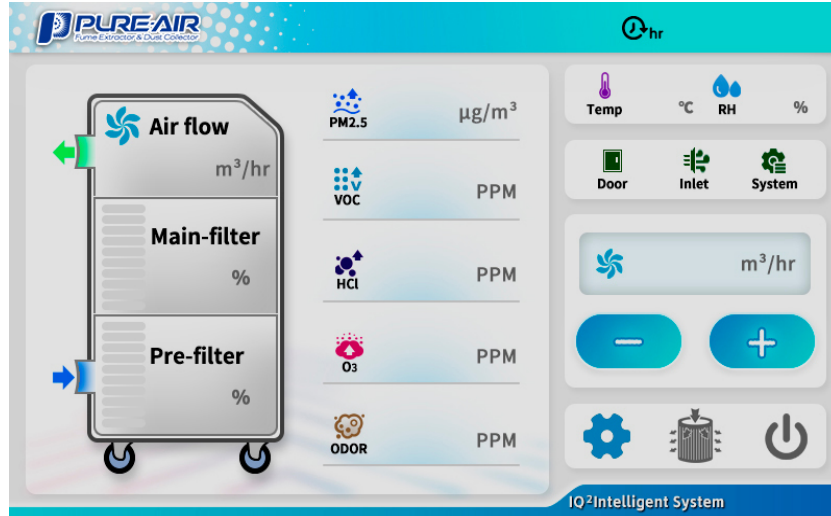
(1) Is the device compatible with voltages in different countries (eg. 220v / 380v)?

Standard models support 220v single-phase power, high-power devices require 380v three-phase power. Export models can be customized single-phase 110v or three-phase 220v, 400v, 415v, 440v and other different voltages and frequencies.

(2) Is additional voltage regulator required for high voltage fluctuations?

Built-in wide voltage design ($\pm 10\%$ fluctuation range can work normally), if the power grid fluctuation exceeds this range, it is recommended to install a voltage regulator.





4 Control And Operation

(1) What controls does the device support?

The base model supports key panel control. Smart models support I/O remote start and stop control. RS-485 control, some can be connected to mes system.

(2) How to adjust the air volume in automatic mode?

Pure-air environmental protection latest wind intelligent purification system built-in sensor real-time monitoring of filter element status, automatic adjustment, to achieve the actual air volume and set air volume automatic compensation.

(3) Does it support linkage control of multiple purifiers?

It can achieve centralized start and stop and air volume coordination through RS-485 networking, which is suitable for large-scale workshop multi-station scenarios.

5 Safety And Maintenance

(1) What are the special maintenance requirements for explosion-proof models?

It is necessary to regularly check the sealing of explosion-proof joints, grounding line resistance ($\leq 4\omega$), regularly clean the dust in the dust collection hopper, and prohibit the use of non-original explosion-proof accessories.

(2) How to maintain the equipment in high temperature and humid environment?

The high temperature environment needs to be properly cooled, and the high humidity environment needs to use the moisture-proof filter to extend the service life of the filter.

(3) How to carry out daily maintenance of non-explosion-proof fume extractor?

Before using the dust purifier, it is necessary to check whether the filter element is sealed to ensure the normal use of the machine. When the dust purifier filter block alarm appears, the new original filter should be replaced in time to avoid the damage of the filter, smoke into the fan, damage to the fan and control system.





Breathe Pure Air with Our Ultra-Efficient Fume & Dust Purifier!

DONGGUAN PURE-AIR TECH CO., LIMITED

Fume Extractors

Dust Collectors

VOC & Odor
Purifier

Ozone (O₃) Purifier

Explosion-Proof Dust Collectors



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