

DiFluid AirWave

User Manual

* For product video tutorials, please scan the QR code card inside the packaging.

Table of Contents

Please read the user manual carefully before using this product and operate it according to the instructions.

1	Safety Precautions	
	Safety Precautions	19
2	Getting to Know the Components	
	Getting to Know the Components	20
3	Specifications	
	Specifications	21
4	Introduction to Core Functions	
	Product Features	22
5	Instructions for Use	
	Accessory Installation	23
	Precautions for Powering On/Off	25
	Button Operation Instructions & Interface Overview	26
6	Cleaning and Maintenance	
	Daily surface cleaning	30
	Silver mesh filter & air inlet cleaning	30
	Self-Cleaning Mode Cleaning	31
7	App Download	
	App Download	32
8	Common Issues and Solutions	
	Common Issues and Solutions	32
9	Error Code Reference Table	
	Error Code Reference Table	34
10	Warranty Policy	
	Warranty Policy	36
11	FCC Requirement	
	FCC Requirement	37

Safety Precautions

! Power Outlet:

- ① For the 220V version of AirWave, please use a power outlet rated at 10A or above, and do not share the outlet with other appliances.
- ② For the 120V version of AirWave, please use a power outlet rated at 15A or above, and do not share the outlet with other appliances.

! **Power Cord:** Please use the power cord specified for this product. Do not modify or replace it with a different type, as this may result in electric shock or fire hazards.

! **Exhaust Vent Is HOT:** Do not touch the exhaust or intake vents with bare hands while the machine is operating, as it may cause burn injuries.

! **Ventilation:** Pay attention to the ventilation of the environment, especially when using gas roasting machines.

! **Ducting:** The maximum heat resistance temperature is 150°C. Before use, test the exhaust temperature at the roaster outlet. If it exceeds 150°C, it is recommended to replace with a high-temperature resistant duct or use the roaster's original duct nested inside the compatible duct.

! **Usage Environment:** Avoid using in places that are overly humid, excessively hot, or exposed to direct sunlight.

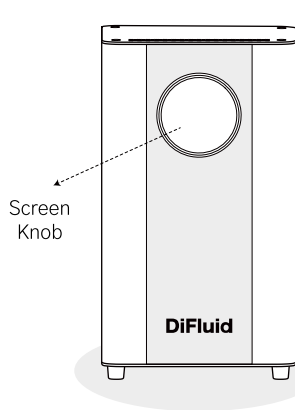
! **Malfunction:** Do not attempt to use AirWave for purposes other than coffee roast-smoke extraction. If AirWave malfunctions, do not attempt to disassemble or repair it yourself. Please contact official after-sales service. service@digitizefluid.com

! **Cleaning:** Always disconnect power before cleaning and maintenance to ensure safety.

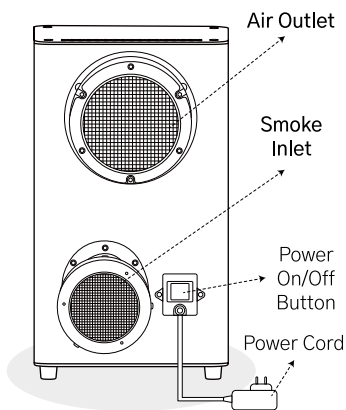
! **Duct Cleaning:** Regularly inspect the duct for blockages or damage. If blocked, clean it promptly; if damaged, replace it promptly.

! **Storage Conditions:** When not in use for an extended period, please unplug the power cord and store AirWave in a dry, well-ventilated place.

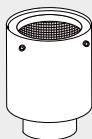
Getting to Know the Components



AirWave Main Unit (Front)



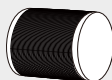
AirWave Main Unit (Back)



Silverskin Collection Module*1



Heating Wire*1
(Replacement Part)



Air Duct*1



Hose Clamp*3



Screws*6



Screwdriver*3

Specifications

Name	DiFluid AirWave Smart Smoke Eliminator
Model	DFT-SF101
Rated Voltage	220V version: 220–240V 120V version: 100–120V
Rated Frequency	220V version: 50Hz 120V version: 60Hz
Rated Power	220V version: 2400W 120V version: 1800W
Roasting Capacity	220V version: ≤1kg 120V version: ≤800g
Maximum Airflow	130m³/h (airflow after connection: 80m³/h) (Note: Exceeding this may leak smoke, depending on roaster.)
Max Inlet Temperature	Below 140°C
Heat-resistant duct	Heat resistant up to 150°C
Noise Level	< 76dB(A)
Total Weight (Main Unit)	Approximately 6.9kg
Dimensions (L × W × H)	290mm×181mm×318mm
Inlet Duct Diameter	100mm
Outlet Duct Diameter	100mm
Smoke Filter Modes	Standard Filtration, Extreme Filtration, Fan Mode
Operating Modes	Manual Mode, Automatic Mode
Machine Cleaning	Self-cleaning mode: Activate every 50kg of roasting. ! Use periodically during long disuse to reactivate the catalyst.
Power Supply Parameters	220V = 10A 120V = 15A
Contents	AirWave Main Unit*1, Air Duct*1, Screws*6, Heating Wire*1, Hose Clamp*3, Screwdriver*3, Silverskin Collection Module*1, User Manual (including Warranty Card)*1, Conformity Certificate*1, Tutorial QR Card*1

Introduction to Core Functions

Thank you for purchasing AirWave, the Coffee Roast-Smoke Eliminator. This device is specifically designed to eliminate smoke and harmful gases generated during the coffee roasting process, effectively filtering the smoke produced and creating a fresh and healthy roasting environment. It features an advanced catalytic system with powerful smoke and odor removal capabilities while being easy to operate, safe, and reliable. It is the ideal companion for your coffee roasting needs.

1. Product Features

- 1) **Powerful Suction, Rapid Smoke Removal:** Equipped with a high-performance suction system, AirWave quickly and efficiently removes smoke generated during the roasting process, ensuring optimal air quality.
- 2) **Industry-leading, pioneering low-temperature catalytic technology:** The fully self-developed AirWave NovaCat catalyst is a new generation of low-temperature, high-efficiency catalytic material specially designed for the coffee industry. It uses a high thermal conductivity and impact-resistant special material design, enabling rapid heating and activation of the catalytic reaction in a short time. Combined with a self-developed catalytic additive composite formula, it significantly improves low-temperature catalytic efficiency and resistance to water and toxins, maximizing the removal of PM and VOCs. AirWave also collects silverskin and dust, enhancing environmental protection and user experience.
- 3) **Dual Modes and Adjustable Settings:** Featuring both manual and automatic modes to meet diverse usage needs. Additionally, AirWave offers two filtration levels, allowing you to adjust the filtration strength according to your needs.

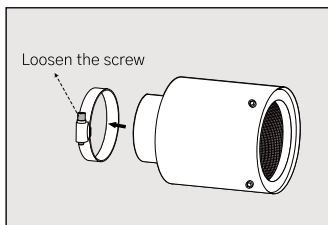
- 4) **Intelligent control with convenient OTA upgrades:** AirWave supports integration with DiFluid's OmniVision system, enabling smart adjustment of airflow for energy saving and high efficiency; OmniVision also supports screen interaction and remote OTA upgrade services.
- 5) **Environmentally friendly, safe, and reliable:** Equipped with a recyclable lightweight metal casing and internal catalyst, promoting green and low-carbon sustainability; high-temperature protection system ensures the safety of both itself and its operating environment.

Instructions for Use

The duct connection method can be adjusted according to the user's needs, including either **loose connection** or **tight connection**. If the duct sizes do not match, use an adapter or use the roaster's own duct to sleeve together with the matching duct. It is recommended to use a tight connection at the roaster's exhaust outlet, while at the extractor's air inlet, follow the installation instructions below and use a loose connection.

1. Accessory Installation

- 1) Connect the silverskin collection module to the device's smoke inlet.

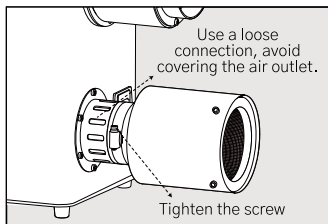
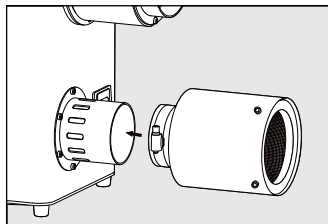


1

Loosen the screw on the hose clamp and insert the smaller end of the silverskin collection module into the hose clamp.

2

Insert the silverskin collection module and hose clamp into the device's smoke inlet.



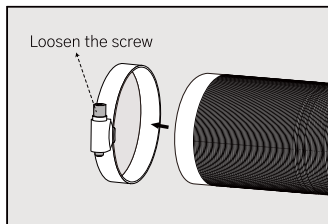
3

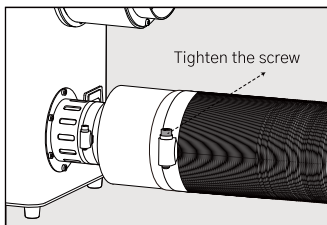
Tighten the screw on the hose clamp to securely connect the silverskin collection module to the device's smoke inlet, ensuring a firm connection.

2) Connect the air duct to the silverskin collection module.

1

Loosen the screw on the hose clamp and insert one end of the air duct into the hose clamp.





2

As shown in the diagram, insert the air duct and hose clamp into the silverskin collection module, tighten the screw on the hose clamp, and complete the installation.

Air Duct Installation Precautions

! During installation, the duct should have a smooth curvature transition to ensure optimal smoke intake performance.

2. Precautions for Powering On/Off

Power Plug Instructions:

- ① **Reset Button:** The plug is equipped with leakage protection. Each time the power is restored after a leakage trip, you must manually press the reset button to restore power and use the device.
- ② **Test Button:** When pressed, the button will pop out, indicating the leakage protection is functioning properly. After testing, the reset button will pop out and must be pressed again to restore power.

- 1) **Power On:** Press the power switch on the back of the device to start it. The screen will light up with the DiFluid logo and then enter the main interface.

- 2) **Shutdown:** After roasting is completed, observe the catalyst temperature displayed on the current screen. When the  catalyst temperature drops below 40°C, press the main power switch to stop the device.
(**Note:** It is not recommended to cut off power immediately after roasting, as this may reduce the lifespan of the heating element.)
- 3) **Airflow Adjustment:** In manual mode, rotate the screen knob to adjust the appropriate airflow speed according to the amount of smoke generated during roasting. (: A higher air speed will result in stronger smoke removal, while a lower temperature will decrease the smoke elimination effect.)

3. Button Operation Instructions & Interface Overview

Basic Operations (Buttons)

- ! Long press the screen to enter the settings page.
- ! Rotate the knob to select options or adjust the fan speed.
- ! Short press to confirm (select).
- ! When "Ready" is displayed, it means the device is ready to start.
After selecting a mode, short press the screen to start smoke elimination or fan mode.

【Home Screen】Introduction



- ① **Current Filtration Level:** Standard Filtration, Extreme Filtration, Fan Mode.
- ② **App connection icon:** The icon lights up when connected.
- ③ **Bluetooth Broadcast Icon:** Lights up when Bluetooth is discoverable.
- ④ **“Ready” displayed means standby:** short press the screen to start smoke purification or Fan Mode.
- ⑤ **Inlet air temperature:** The current inlet air temperature of the device.
- ⑥ **Catalyst Temperature:** The current temperature of AirWave’s purification catalyst.

【Settings Page】 Introduction



- ① **Gear:** There are three modes, Standard Filtration, Extreme Filtration, and Fan Mode. You can switch between these modes anytime during the roasting process according to your needs.
- Standard Filtration:** The device can eliminate smoke produced in the early stage before the second crack for roasting machines with a capacity of 1 kg or less. The default heating temperature is 250°C, and the maximum ideal wind speed is 85%. The decomposition gases may have a slight odor. (220V High-Power Version)
 - Extreme Filtration:** The device can eliminate smoke produced in the dense early stage before the second crack for roasting machines with a capacity of 1 kg or less. The default heating temperature is 300°C, and the maximum ideal wind speed is 80%. The decomposition gases may have a slight odor. (220V High-Power Version)

- c. **Fan Mode:** Used in the early roasting stages when smoke purification is not needed and air circulation is required. In this mode, heating is disabled. The default fan speed is 95%, and the fan speed can be adjusted. (! Prolonged use of Fan Mode without heating may affect the catalyst's lifespan.)
- (* The above data were obtained under laboratory testing conditions. Please refer to the actual usage for specific results.)
- ② **Modes:** There are two modes available—Manual Mode, Automatic Mode.
- a. **Manual Mode:** After the device is powered on, it defaults to Manual Mode with Extreme Filtration gear and a default airflow setting of 65%. In this mode, you can adjust the airflow percentage by rotating the screen button clockwise or counterclockwise to select the desired airflow.
- b. **Automatic Mode:** (**Note:** Automatic Mode must be used together with DiFluid OmniVision.) In this mode, the device intelligently and automatically adjusts the heating power according to the amount of smoke produced at each roasting stage, and can independently adjust the airflow speed.
- ③ **Self-Cleaning:** After selecting the self-cleaning mode, the device will clean itself (you can decide flexibly whether to use self-cleaning based on the purification effect. Frequent use of this mode is not recommended, as it may reduce the heating element's lifespan).
- ④ **Bluetooth:** The Bluetooth status can be manually selected (on or off).
- ⑤ **Temperature Unit:** The temperature unit can be selected (Celsius °C, Fahrenheit °F, etc.).
- ⑥ **Language:** The device language can be set (Simplified Chinese, English, Japanese, etc.).
- ⑦ **Device Information:** You can view the current device's firmware version, S/N number, device name, and the QR code for connecting the device to the app.
- ⑧ **Factory Reset:** The device will clear all history and restore parameters to the factory default settings.

Cleaning and Maintenance

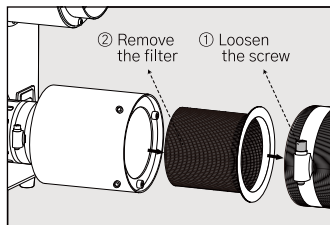
The cleaning frequency of the device is affected by factors such as usage frequency, the type of connected roasting machine, and the amount of coffee beans roasted. The following cleaning recommendations are provided for different scenarios:

1. Daily surface cleaning

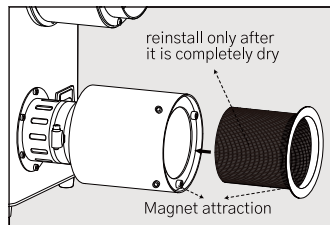
After each use, wipe the surface of AirWave with a clean, soft cloth to help keep it clean. Avoid using strong chemical cleaners or abrasive cleaning tools to prevent damage to the surface and maintain its appearance.

2. Silver mesh filter & air inlet cleaning

The cleaning frequency of the silver mesh filter depends on the roasting machine it is paired with. It filters particles larger than 300 microns in diameter. It is recommended to observe the amount of silver skin collected by the filter after the first use and then customize the appropriate cleaning frequency accordingly.

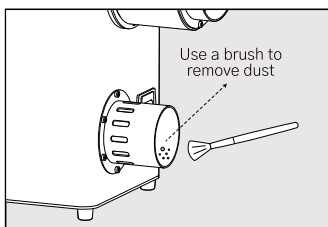


Remove the filter screen

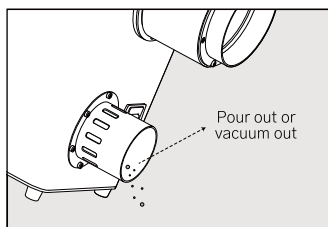


Reinstall the filter screen

- 1) **Filter cleaning procedure:** Remove the filter screen from the silver skin collection module. Clean it with water and a neutral detergent, and a brush can be used for cleaning (**Note:** reinstall only after it is completely dry).



1



2

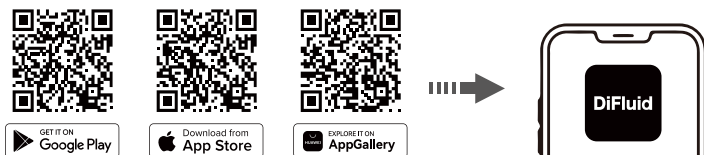
- 2) **Inlet cleaning:** After prolonged use, dust may accumulate. Please use a brush to remove the dust, then pour or vacuum it out.

3. Self-Cleaning Mode Cleaning

- It is recommended to perform a self-cleaning of the device after every 50 kg of coffee beans roasted.
- If unused for a long time, activate the self-cleaning mode to activate the catalyst and ensure its proper function.
- you can decide flexibly whether to use self-cleaning based on the purification effect. Frequent use of this mode is not recommended, as it may reduce the heating element's lifespan.

App Download

Scan the QR code to download the DiFluid Café app.



Common Issues and Solutions

Fault Phenomenon	Possible Cause	Solution
The display shows a numeric error code	Sensor or temperature abnormality	Contact customer service according to your purchasing platform
The device won't turn on	Power is not connected or the plug is loose	Check if the power plug is properly connected and ensure the power supply is functioning
	Switch malfunction	Contact customer service according to your purchasing platform
Abnormal wind speed / Insufficient suction	Fan malfunction	Contact customer service according to your purchasing platform
	Fan speed adjustment button malfunction	Check if the button is damaged. If damaged, contact support
	Air duct blockage or damaged	Check for blockages and clean or replace the air inlet duct

Fault Phenomenon	Possible Cause	Solution
Poor smoke extraction effect	Smoke extraction material blockage or damage	Activate self-cleaning mode or contact support to replace the catalyst
	Silver skin collection module blockage or damage	Clean or replace the silver skin collection module
	Air duct blockage or damage	Clean or replace the exhaust duct
Abnormal noise during device operation	Foreign object inside the device	Contact customer service according to your purchasing platform
	Device installation is not secure	Check and refasten the device to ensure it is securely installed

! If the voltage in your roasting studio is lower than the standard voltage of the smoke remover, it may affect smoke removal performance.

Error Code Reference Table

This table is for reference only. If you encounter an error message, please contact after-sales service for troubleshooting.

Error Component	Error Component Code	Error Type			Trigger Cause	Possible Cause
Mainboard	0	0	0	1	Mainboard Temperature Too High (>60°C)	1. Cooling Fan Faulty / Cooling Vent Blocked
Air Inlet Temperature Sensor	1	0	8	0	Temperature Too High (>200°C)	1. High Inlet Air Temperature 2. Sensor is Faulty
		0	4	0	Temperature Too Low (< -50°C)	1. Sensor Abnormality
		0	2	0	Sensor Circuit Abnormality	1. Sensor Abnormality
		0	1	0		
		0	0	8		
		0	0	4	Sensor Power Supply Abnormality	

Error Component	Error Component Code	Error Type			Trigger Cause	Possible Cause
Air Outlet Temperature Sensor	2	0	8	0	Temperature Too High (>420°C)	1. Motor stopped running, causing no air circulation 2. Sensor is faulty
		0	4	0	Temperature Too Low (<-50°C) Or Sensor Circuit Abnormality	1. Sensor Abnormality
		0	2	0	Sensor circuit abnormality	1. Sensor Abnormality
		0	1	0		
		0	0	8		
		0	0	4	Sensor Abnormality	
Fan Motor	3	0	0	1	Software Overcurrent	1. Motor abnormality
		0	0	2	Hardware Overcurrent	
		0	0	4	Overvoltage	1. Power supply abnormality
		0	0	8	Undervoltage	
		0	1	0	Locked Rotor	1. The motor is jammed
		0	4	0	Phase loss	1. Motor abnormality
		0	8	0	Overheating	1. The motor is overheating
		2	0	0	Startup error	1. The motor is jammed

Error Component	Error Component Code	Error Type			Trigger Cause	Possible Cause
Overheating	4	0	0	1	Heating abnormality	1. Heating element failure 2. The thyristor (silicon controlled rectifier) is damaged

Warranty Policy

Exclusions from Warranty Coverage

- 1) Purchased from non-official authorized sales channels or without warranty certificate and valid invoice;
- 2) Beyond the warranty period;
- 3) Malfunctions or damages caused by misuse, unauthorized modification, disassembly, repair, or firmware flashing;
- 4) Malfunctions or damages caused by transportation, handling, or dropping after purchase;
- 5) Accidental or human-induced product damage, such as liquid ingress, incorrect voltage input, overvoltage, screen or casing scratches caused by human factors;
- 6) Malfunctions or damages caused by other force majeure events (e.g., fire, earthquake, flood).

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.