

SIP Industrial Products Limited

Gelders Hall Road  
Shepshed  
Loughborough

Leicestershire  
LE12 9NH  
United Kingdom



## SIP FX300 Welding Fume Extractor



*SIP Code 05814*

For help or advice please contact  
your distributor, or sip directly on:

Tel.: 01509 500400

Email:

[sales@sip-group.com](mailto:sales@sip-group.com)

or

[customerservice@sip-group.com](mailto:customerservice@sip-group.com)

[www.sip-group.com](http://www.sip-group.com)







Please read and fully understand the instructions in this manual before  
operation. Keep this manual safe for future reference.



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## SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL

	<b>Danger / Caution:</b> Risk of electrical injury or damage.
	<b>Danger / Caution:</b> Risk of injury or damage.
	<b>Danger / Caution:</b> Risk of personal injury and / or the possibility of damage.
	<b>ATTENTION:</b> draws attention to situations and problems associated with the efficiency of the machine that do not affect the safety of people.
	<b>Note:</b> Supplementary information
	<b>ENVIRONMENT:</b> draws attention to behaviors and procedures to limit the environmental impact related to the use of the machine.

## SAFETY INSTRUCTIONS

- Do not use the machine in places where there is a risk of explosion or fire. Do not approach the machine with naked flames or other.
- Use the machine in a dry environment, not subject to condensation phenomena of atmospheric humidity and protected from direct exposure to atmospheric agents and sunlight.
- Always use the machine in adequate lighting conditions. The environment of use must be well ventilated and in compliance with the regulations in force on hygiene and safety at work.
- Do not use the machine in harsh environmental conditions: the ambient temperature must be between 5 ° C and 40 ° C, with a humidity level less than 80%.
- Check that the electrical power supply system of the machine is up to standard and equipped with appropriate protection devices against current leakage and short circuit.
- The use of the product must be preceded by adequate staff training and by reading this User Manual.
- The machine can be used as a portable unit for the extraction, filtration and deodorisation of welding fumes in the electronics industry in general, in body shop departments and for small welds.
- The use of the machine is allowed only to adult and responsible operators, properly trained.
- The machine must be handled with caution, respecting the rules given in this manual.
- After use, do not leave the flexible hose unattended on the ground, as it maybe a trip hazard or get damaged.
- Handle the hose and the cap using protective gloves in order to avoid burns due to the high temperatures that can be reached in conditions of prolonged use.
- Do not carry out repairs or modifications to the machine.
- Do not carry out maintenance when the machine is running. To clean the machine, do not use corrosive or harmful detergents.

## SAFETY INSTRUCTIONS

- In case of breakdown or malfunction of the machine DO NOT USE IT AND CLEARLY LABEL IT AS OUT OF THE SERVICE. Contact our Customer Service for any repairs.
- Wear suitable personal protective equipment (PPE) during use, maintenance and cleaning of the machine.
- During the maintenance phases, do not disperse any residues in the surrounding environment, but comply with the current regulations.

### WELDING

- The intended use of the machine is the suction of welding fumes in industry and automotive workshops: it is forbidden to use it to suck up other substances (dust, liquids, vapors, etc.), especially if flammable, explosive, corrosive, etc
- The machine must only be used in a work environment protected from atmospheric agents.
- The machine must be used with caution, making sure that the power supply cable and flexible hose are not placed in dangerous areas or where they can hinder other operators.
- The machine was not designed to be used in a potentially explosive atmosphere: its use in environments where there is a risk of fire or explosion is prohibited.
- It is forbidden to use it with systems for capturing and conveying the flow rate that do not allow the entry of air at room temperature as prescribed.
- SIP Industrial Products disclaims any liability for damage to the machine itself, to people or property caused by the incorrect use of the collection cap or the use of inappropriate hoods.

### ELECTRICAL

- **ELECTRICAL RISK:**
- It is forbidden to perform repairs or maintenance on the machine when it is connected to the electrical power system; however, should it be necessary to operate with the machine powered on, this practice can only be carried out by Qualified Personnel, with expertise in the electrotechnical field, or by SIP Industrial Products / SIP Service Agent.
- Adopt all the precautions according to the regulations in force if you have to operate with the machine powered on: wear insulating gloves and shoes and use insulating mats and insulated tools. Also check that the system to which the machine is connected is protected from leaks and short circuits, as required by current legislation
- **RISK OF FIRE OR EXPLOSION:**
- The machine cannot be used in environments with a high risk of fire or explosion. It is forbidden to store, even temporarily, potentially flammable or deflagrating substances in the rooms where the extraction system is installed.
- **RISK OF FAILURE OR MALFUNCTIONING:**
- Long use of the machine in particularly severe environmental conditions (brackish environment, excessive temperature, condensation, presence of dust, exposure to atmospheric agents, etc.), can cause malfunctions or failures of the product and compromise its safety.
- Respect the requirements indicated in the "Safety Warnings" relating to the work environment, reported in this User Manual.
- **RISK OF INCORRECT INTERPRETATION OF SAFETY LABELS:**
- Following the identification of the main sources of danger that emerged from the Risk Analysis, Safety Stickers, with unified symbols, were applied to the machine to signal these sources of danger. Over time, these stickers can become illegible or difficult to interpret due to aging or wear.
- The user is required to immediately replace the Safety Stickers that become illegible due to aging, wear or damage.

## SAFETY INSTRUCTIONS



**Danger:** Risk of Electric Shock. Electrocutation risk around the mains input and socket. Do not touch electrical parts. Do not extinguish electrical fires using water, use an appropriate extinguisher.



**Warning:** Always use appropriate personal protective equipment (PPE) .

### DOCUMENTATION

- The SIP FX300 machine is accompanied by this User Manual which contains the technical information, figures, instructions and warnings necessary for correct use of the product.
- The User Manual must accompany the machine throughout its life cycle, even in the event of sale or transfer; must be stored in such a way as to ensure its integrity and must be easily accessible in case of need (it is advisable to keep a copy near the machine).
- The purpose of this document is the transmission of the information necessary for the competent and safe use of the product and therefore must be made available to all personnel who work with the machine and its systems (Plant Manager, User, Maintenance Technician and Qualified Personnel machine installation, power supply and commissioning).
- In the event that this manual is lost or damaged, it is recommended to request a new copy directly from SIP Industrial Products Ltd or our website.

## SAFETY INSTRUCTIONS

### DELIVERY, TRANSPORT & HANDLING

- Upon delivery, the machine is contained in two packages. Upon receipt of the goods, check that the packaging integrity and that there are no signs of possible damage suffered during transport; if necessary, before opening the package, document the problems encountered with some photographs.
- In the event that the product is damaged, do not use and report the incident to SIP Industrial Products .
- Arrange a place protected from bad weather to store the product waiting for the installation, in case installation is not immediate.
- The product cannot be exposed to bad weather, store and use it in a dry and covered room.
- In case of damage to the product during transport, do not proceed with use
- For the transport operation, the operator must unload the packaged machine using a suitable means for lifting.
- Remove the packaging only at the time of final commissioning of the machine and dispose of the materials in accordance with current regulations.
- The loading and unloading operations and subsequent handling must be performed keeping the machine in its original packaging and using an appropriate lifting device.
- Make sure that the lifting means are suitable for the weight of the machine and carry out handling in safe conditions, in accordance with the provisions of current legislation.
- Personnel not involved in the operation must keep a safe distance. Check that there are no objects resting on the machine and that the moving parts have been fixed. The floor must be flat, clean and free of residues
- When opening the packaging, the operator must check that all machine components are present and that they have not been damaged during transport. If not, contact our dealer.

## GUARANTEE

This SIP FX300 welding fume extractor is covered by a 24 month parts and labour warranty covering failure due to **manufacturers defects.** .

This does not cover failure due to **misuse** or **operating the extractor outside the scope of this manual** - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs.

Failure to regularly clean your extractor will shorten its working life and reduce performance.

Failure to clean and / or replace the filters regularly will impact the life of the motor, and excess ingress or damaged caused by ingress to the motor will not be covered under the warranty.

The warranty does not cover consumable items such as hoses, filters etc and also components subject to normal wear & tear.



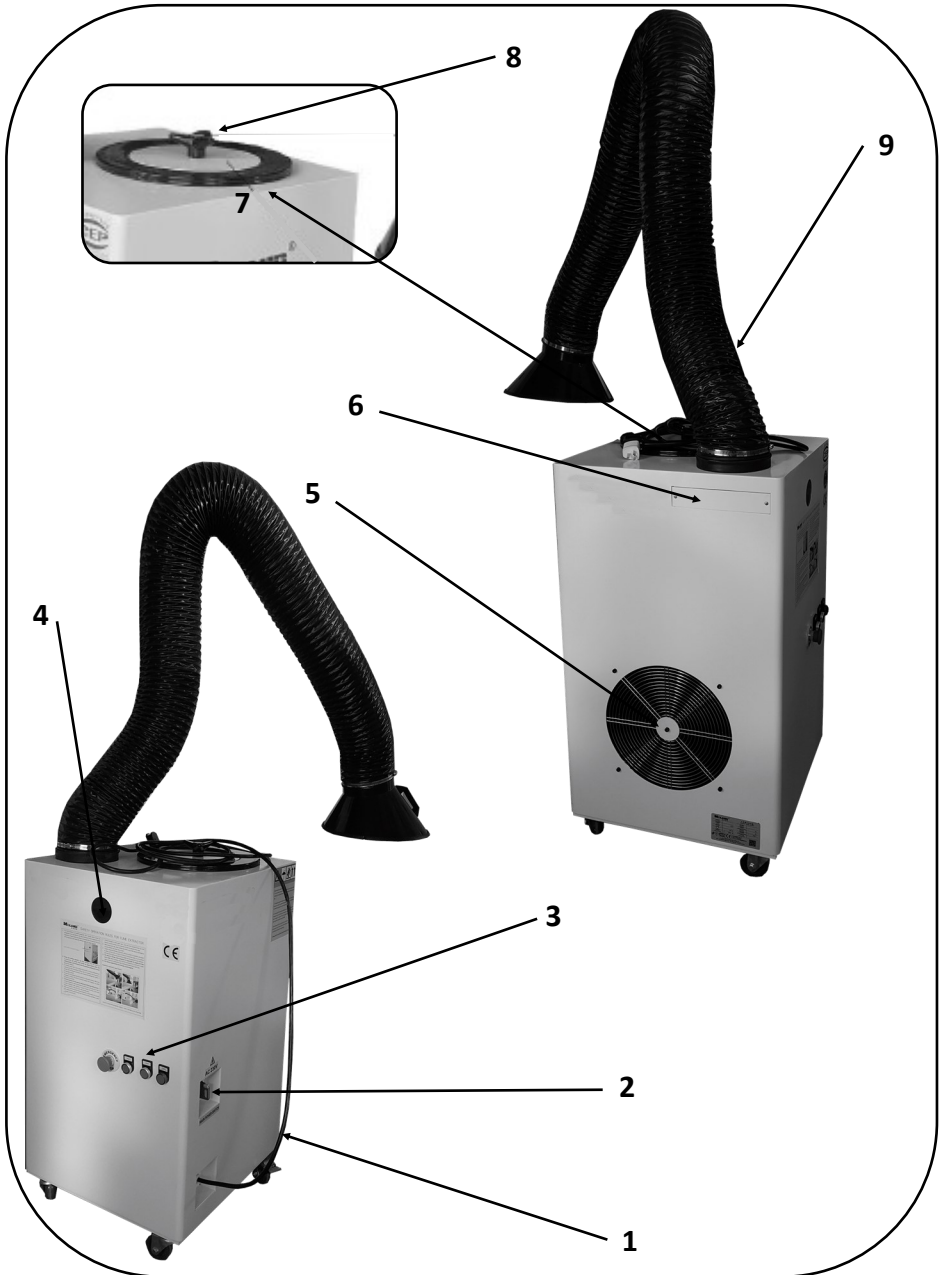
**NOTE:** Proof of purchase will be required before any warranty can be honoured. .

## TECHNICAL SPECIFICATION

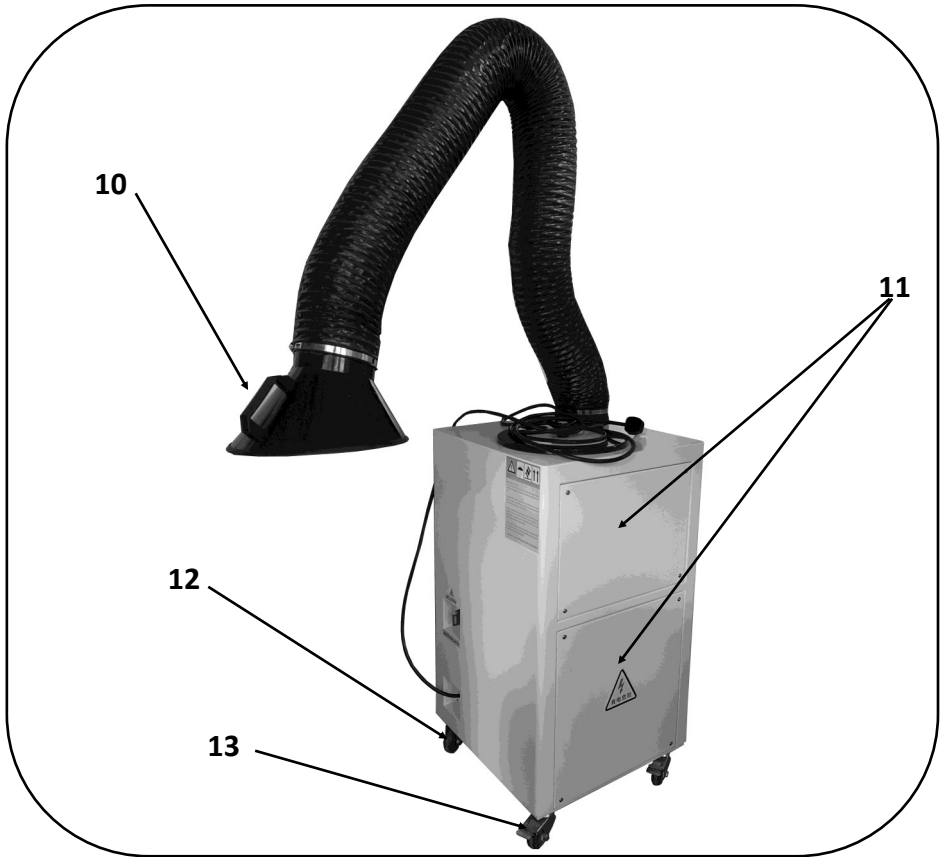
<i>05814 SIP FX300 Welding Fume Extractor</i>	
<i>Supply Voltage</i>	230V / 50Hz
<i>Motor Power</i>	1.5kw
<i>Weight</i>	70kg
<i>Maximum Flow Rate</i>	2500m <sup>3</sup> /Hour
<i>Filter Accuracy</i>	0.3µm
<i>Sound</i>	75dBA
<i>Diameter of Suction Hose</i>	160mm
<i>Length of Suction Hose</i>	2mtrs
<i>Filtering Material</i>	Polyester Fibre
<i>Filtering Surface Area</i>	8m <sup>2</sup>
<i>Filter Air Resistance (@32L/min)</i>	300Pa
<i>Dust Classification</i>	E12

- This portable unit is the ideal solution for the extraction and filtration of welding fumes from variable position work stations with non-continuous welding operations.
- The gases and fumes given off during welding are captured to prevent them from spreading throughout the workplace; the air containing the contaminants is thoroughly filtered and recycled back to the workplace.
- This unit is designed for the suction and treatment of dry fumes produced by work processes such as spot or non-continuous welding wire or electrode welding.

# GETTING TO KNOW YOUR FUME EXTRACTOR



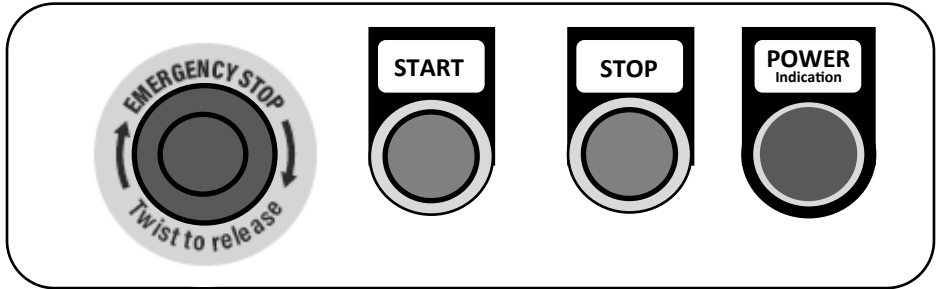
## GETTING TO KNOW YOUR FUME EXTRACTOR



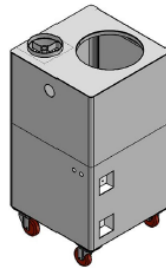
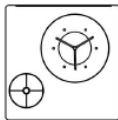
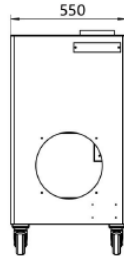
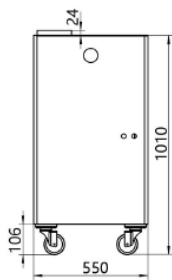
<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
1	5mtr Mains Input Cable	8	Filter Cover Hand Nut
2	Mains On/Off Switch	9	2mtr Self-Supporting Arm
3	Extractor Controls	10	Extraction Hood c/w Handle
4	Inspection Window	11	Access Panels
5	Ventilation / Exhaust	12	Castor Wheel
6	Spark Arrestor Access	13	Locking Castor Wheel
7	Main Filter Access		

# GETTING TO KNOW YOUR FUME EXTRACTOR

## CONTROL PANEL



## DIMENSIONS



<b>Weight</b>	GW 89kg	NW 79kg
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## OPERATING INSTRUCTION

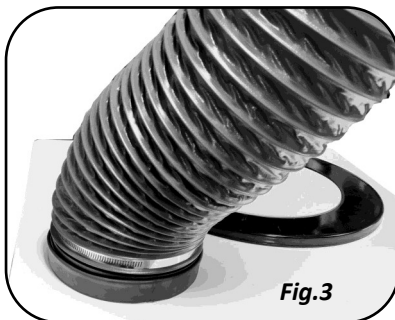
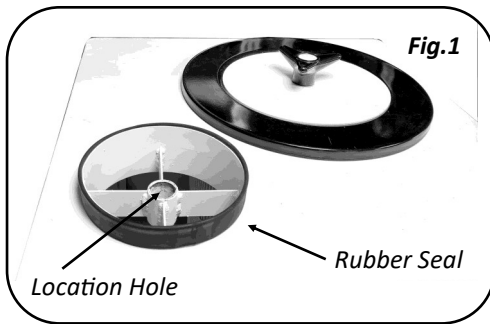
### INSTALLATION - FITTING THE ARM

The arm is supplied fully assembled.

Follow the steps below to install.

- Remove the extractor from the packaging to expose the arm connector / inlet. Ensure the rubber seal is in place. Fig.1
- Offer the arm up to the connection. Fig.2
- Align the spigot / pivot pin with the corresponding hole and place in position. Fig.3.

The arm is now installed, no further fixing etc are required.



**NOTE:** The arm is fully assembled and heavy. It is advisable have two people available for installation.

## OPERATING INSTRUCTIONS

### ELECTRICAL CONNECTION

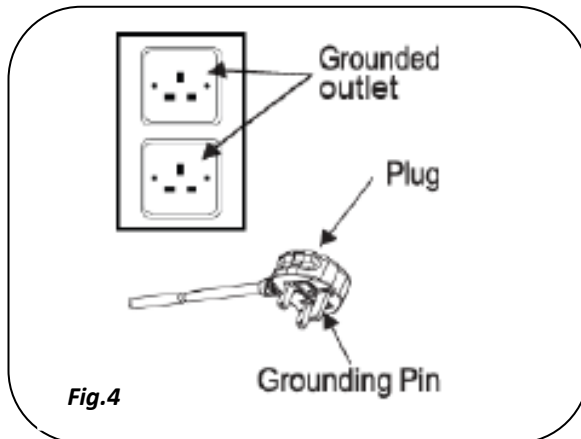


**Warning** Read these electrical safety instructions thoroughly before connecting the product to the mains supply.

This extractor is for use with a 230V UK domestic socket and should be grounded/earthed. Make sure that the product is connected to an outlet that has the same configuration as the plug (see Fig. 4). If an extension lead is used, make sure the cable size is sufficient as to be able to take the current of the extractor..

Check with a qualified electrician if the grounding instructions are not understood or there is doubt as to whether the product is properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

Improper installation of the grounding plug will result in a risk of electric shock. If repair or replacement of the cable or plug is necessary, consult a qualified electrician.



We strongly recommend that this machine is connected to the mains supply through a Residual Current Device (RCD).

If you are not sure, consult a qualified electrician. DO NOT try to do any repairs.

## OPERATING INSTRUCTIONS

### START / STOP

To start & stop the extractor. ( see **Control Panel** page 14)

- Plug in the mains plug into a socket and switch on.
- Turn the recessed rotary ON/OFF switch on the side of the extractor to ON.
- The power indication light will illuminate.
- Place the self supporting arm over the weld area. Keep the distance between the hood and the workpiece to less than 400mm.
- Press the Green ON button.
- The extractor will now suck up and extract the welding fumes.
- On completion of the welding, press the Red OFF button to turn off.
- Turn the rotary ON/OFF switch to the OFF position.
- Switch off at the mains supply.



**NOTE:** Prior to every use check the suction hood. There is a fine metal mesh, ensure that it is not clogged / obstructed so that the welding fume can be extracted unhindered.



**NOTE:** Visually inspect the condition on the mains input cable and also the extraction hose prior to use. Ensure that neither are damaged. Only use extractor on even, level ground.



**WARNING:** Do not allow the extraction hose to come into contact with the weld being performed as the high temperature will cause damage.



**WARNING:** Care should be taken when adjusting the arm. When fully extending the arm get assistance to prevent the extractor from tipping over. Never move the extractor using the handle on the hood, and never move the extractor with the arm fully extended.

## MAINTENANCE

The replacement of the filters, which implies clogging / air flow restriction, can vary in terms of frequency and duration of time according to the type of use.

Factors to be taken into consideration are:

- Material to be welded (each material and each alloy produces different fumes / micro-dust);
- Type of welding (each method to perform MIG, TIG, MMA, etc);
- Elements in contact (for example oil, grease, paint, etc. make the generated smoke more “aggressive”):

The extractor is fitted with a inspection window to aid the with the observation of the condition of the main cartridge filter.

The extractor is fitted with 2 filters:-

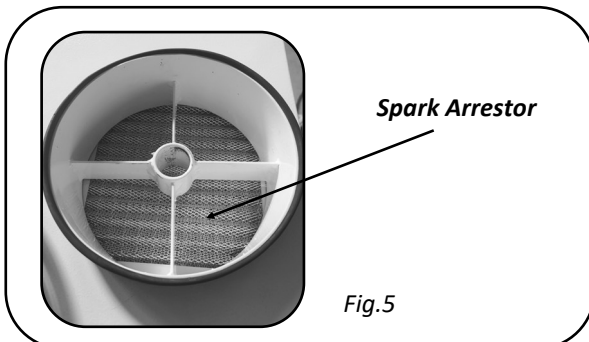
1: Mesh Spark Arrestor

2: Main Cartridge

### SPARK ARRESTOR ACCESS / REPLACEMENT

The spark arrestor mesh is located beneath the arm connection spigot. Fig.5.

It is accessible via the small access panel on the side of the extractor. Fig.6.



## MAINTENANCE

**Spark Arrestor  
Access**



Fig.6

- Unscrew the 6 retaining screws and remove the panel.
- The spark arrestor can be slid out.
- The filter can be cleaned with compressed air and it is also washable.
- Do not re-fit if wet.

### MAIN CARTRIDGE FILTER / REPLACEMENT

The main cartridge filter is accessed via the top of the extractor.

- Remove the Hand Nut from the top of the access panel. Fig.7
- Remove the access panel & unscrew the retaining nut. Fig.8
- Lift the main cartridge up and out using the 2 lugs. Fig.9.
- The filter can be cleaned by shaking or by using compressed air.

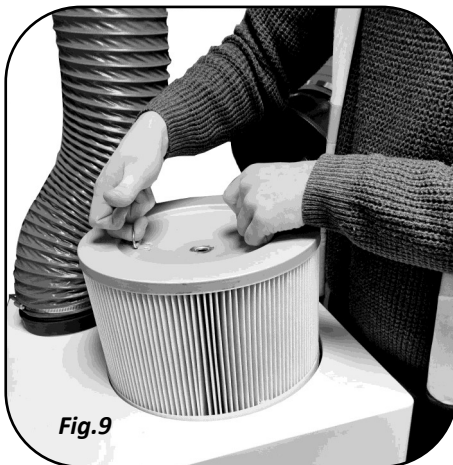
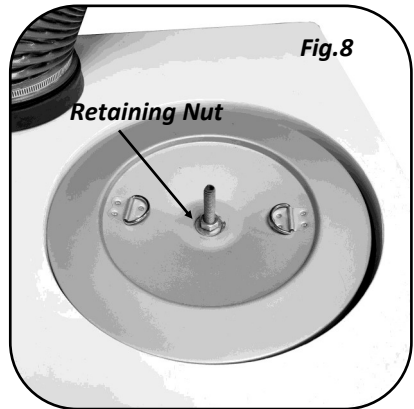
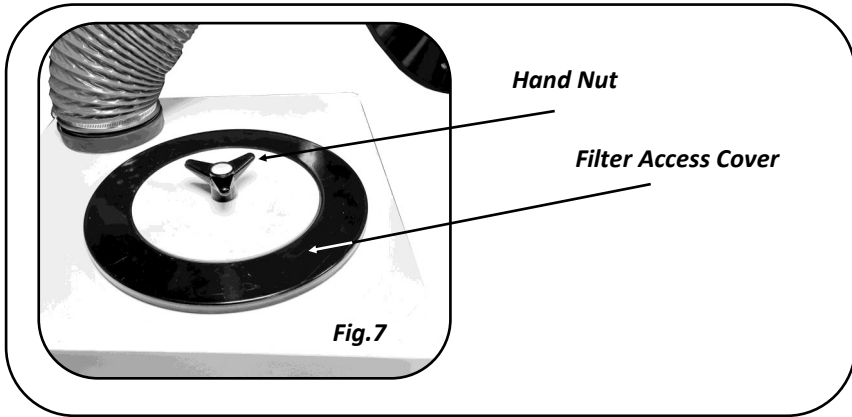


**ATTENTION:** The machine could contain dusts which is harmful to health. Repair, maintenance, filter replacement cleaning operations must be carried out by suitably trained personnel equipped with adequate personal protective equipment (PPE): Gloves, Goggles and Facial filter mask.



**NOTE:** Do not disperse the used filter dust into the environment. Deliver used filters to specialised disposal companies in accordance with current legislation.

# MAINTENANCE



## MAINTENANCE

### **FIRST STAGE FILTRATION:**

Mesh Spark Arrestor

SIP Part Number: WE08-00146

<i>Dimension</i>	186 x 186 x 25mm
<i>Filter Material</i>	Aluminium Mesh
<i>Regeneration</i>	Yes; washable



**NOTE:** Filter should be cleaned weekly.

### **SECOND STAGE FILTRATION:**

Cartridge Filter

SIP Part Number: WE08-00142

<i>Dimension</i>	325mm Ø x 400mm
<i>Filter Material</i>	Polyester Fibre
<i>Regeneration</i>	No

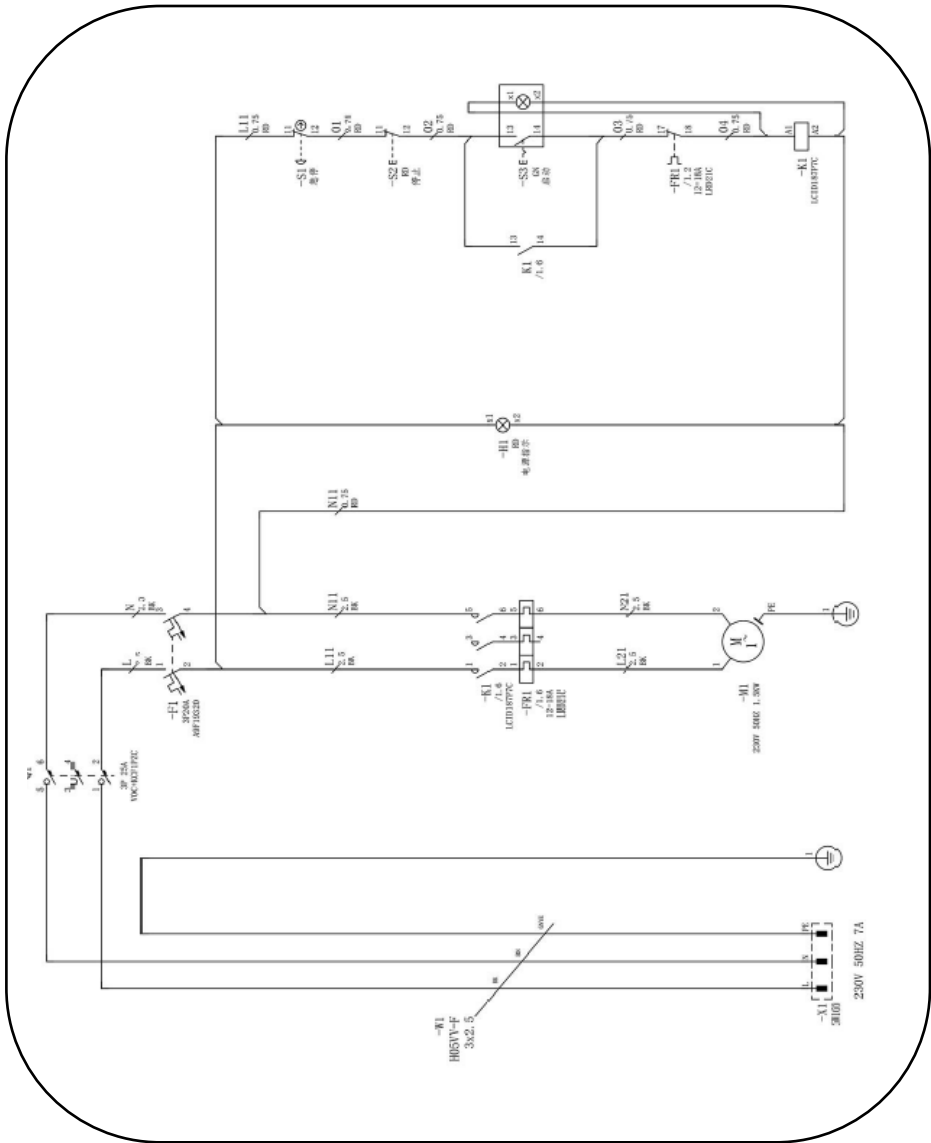


**NOTE:** Filter should be cleaned bi-weekly (fortnightly) to maintain optimum performance.



**NOTE:** It is advisable to replace all the filters in the extractor at least once a year to maintain the maximum performance in both suction & filtration

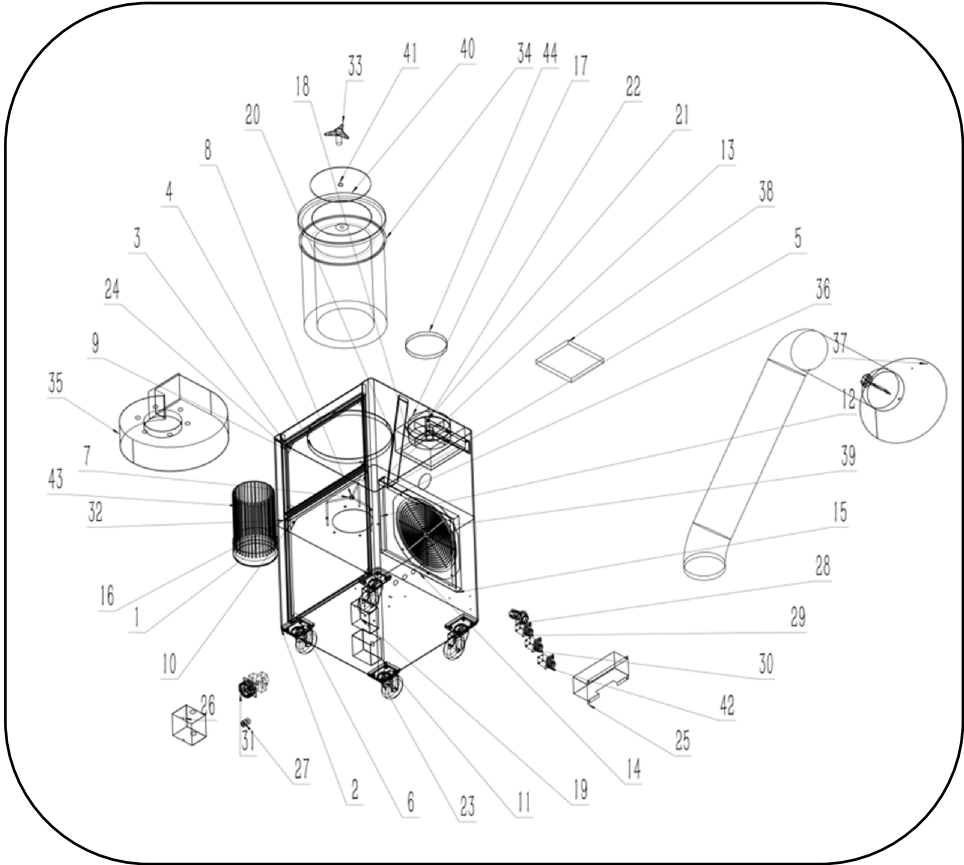
# WIRING DIAGRAM



## TROUBLESHOOTING

<i>Problem</i>	<i>Issue</i>	<i>Remedy</i>
<b>Extractor fails to start</b>	Power Off Blown Fuse Mains Cable Issue	Check Power & Switch  Test Voltage.  Check & Replace.
<b>The power indicator is ON but fan does not start</b>	Check if Start button has been pressed.  Internal fuse blown	Check the condition & replace  Check and test fuses; replace if necessary. *Repair agents only
<b>The extractor has poor / low suction</b>	Clogged / Dirty Filters  Physical Obstructions  Damaged Hose  Suction hood more than 400mm away from work area	Check the condition & replace  Remove any foreign bodies / obstructions  Check hose and replace if necessary  Check & set distance

**EXPLODED DRAWING**



## PARTS LIST

<i>Item No</i>	<i>Description</i>	<i>SIP Part No.</i>
1.	Fume Extractor Housing	WE08-00112
2.	Housing bottom plate	WE08-00113
3.	Housing top plate	WE08-00114
4.	Filter cabinet	WE08-00115
5.	Top plate housing	WE08-00116
6.	Wheel mounting plate	WE08-00117
7.	Filter rod mounting screw	WE08-00118
8.	Filter mounting bracket	WE08-00119
9.	Back panel	WE08-00120
10.	Back rubber seal	WE08-00121
11.	Wire housing	WE08-00122
12.	Vertical Ventilation panel 1	WE08-00123
13.	Horizontal Ventilation panel 1	WE08-00124
14.	Horizontal Ventilation panel 2	WE08-00125
15.	Vertical Ventilation panel 2	WE08-00126
16.	Spacer plate	WE08-00127
17.	Extraction arm mounting base	WE08-00128
18.	Extraction arm mounting base flange	WE08-00129
19.	Switch box	WE08-00130
20.	Pre filter Spark Arrestor Drawer	WE08-00131
21.	Pre filter Spark Arrestor Access Panel	WE08-00132
22.	Drawer stopper	WE08-00133

## PARTS LIST

<i>Item No</i>	<i>Description</i>	<i>SIP Part No.</i>
23.	Castor	WE08-00134
24.	Back plate housing	WE08-00135
25.	Button housing	WE08-00136
26.	Switch housing	WE08-00137
27.	Joint	WE08-00138
28.	Emergency Stop button	WE08-00139
29.	Start button	WE08-00139
30.	Stop button	WE08-00139
31.	Main Power Switch	WE08-00139
32.	Bottom half plate	WE08-00140
33.	Filter cover threaded handle	WE08-00141
34.	Cartridge Filter	WE08-00142
35.	Fan	WE08-00143
36.	Fan retainer bracket	WE08-00144
37.	Extraction hose, Hood, Seal and Handle	WE08-00145
38.	Pre filter Spark Arrestor	WE08-00146
39.	Fan Guard	WE08-00147
40.	Filter cover	WE08-00148
41.	Top filter plate	WE08-00149
42.	Power light	WE08-00150
43.	Motor	WE08-00151
44.	Extraction arm rubber seal	WE08-00152







# UK DECLARATION OF CONFORMITY

**We**

SIP (Industrial Products) Ltd  
Gelders Hall Road  
Shepshed Loughborough  
Leicestershire  
LE12 9NH  
England

**As the manufacturer within England, Scotland and Wales, we declare that the**  
SIP FX300 Welding Fume Extractor : SIP Code 05814

**Conforms to the requirements of the following regulation(s), as indicated:**

Electromagnetic Compatibility Regulations 2016  
Supply of Machinery (Safety) Regulations 2008  
Electrical Equipment (Safety) Regulations 2016  
The Restriction of the Use of Certain Hazardous Substances in  
Electrical & Electronic Equipment Regulations 2012

**And the following harmonised standard(s):**

BS EN ISO 12100:2010  
BS EN 60204-1:2018  
BS EN IEC 61000-6-2:2019  
BS EN IEC 61000-6-4:2019



Signed.

Mr. Paul Ippaso
Managing Director
SIP (Industrial Products) Ltd
Date: 12 February 2024



# EU DECLARATION OF CONFORMITY

**We**

SIP Machinery Europe Ltd  
Quayside Business Park  
Dundalk  
County Louth  
Republic of Ireland

**As the manufacturer within England, Scotland and Wales, we declare that the**  
SIP FX300 Welding Fume Extractor : SIP Code 05814

**Conforms to the requirements of the following directive(s), as indicated:**

EMC 2014/30/EU  
Machinery Directive 2006/42/EC  
Low Voltage Directive 2014/35/EU  
RoHS 2011/65/EU & 2015/863/EU

**And the following harmonised standard(s):**

EN ISO 12100:2010  
EN 60204-1:2018  
EN IEC 61000-6-2:2019  
EN IEC 61000-6-4:2019



Signed.

Mr. Paul Ippaso
Managing Director
SIP (Machinery Europe) Ltd
Date: 12 February 2024



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent. This will allow the recycling of raw materials and help protect the environment.



FOR HELP OR ADVICE ON THIS PRODUCT  
PLEASE CONTACT YOUR DISTRIBUTOR,  
OR SIP

DIRECTLY ON:  
TEL: 01509 500400

EMAIL:  
[sales@sip-group.com](mailto:sales@sip-group.com)

or

[customerservice@sip-group.com](mailto:customerservice@sip-group.com)  
[www.sip-group.com](http://www.sip-group.com)