USER MANUAL

SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR

ITEM NO: 05814

PLEASE READ AND FULLY UNDERSTAND THE INSTRUCTIONS IN THIS MANUAL BEFORE OPERATION.
KEEP THIS MANUAL SAFE FOR FUTURE REFERENCE.

Contents

1 Introduction

Thank You for Choosing SIP

SIP Industrial Products Ltd is a flagship supplier of high-quality machinery and equipment to the ever-growing engineering, construction, automotive and agricultural marketplaces.

As an ISO9001 approved machinery specialist, we are passionate about innovation and offering quality, value and choice, making sure that our users have the most appropriate and reliable product for the task at hand.

Welcome to Your User Manual

This manual is designed to introduce the support in place for you as an SIP customer as well as guide you through the product that you have purchased and how to use and maintain it safely and effectively.

Technical and Aftersales Support

With a dedicated service centre at head office and service engineers across the UK and Ireland, SIP are committed to providing you with the optimum support to minimise any working downtime.

Our extensive Technical, Service Engineer and Customer Service teams are on hand to support with:

- Product selection
- Servicing and maintenance advice
- Troubleshooting

Feel free to contact us for more information.
Tel: 01509 500 400
Email: customerservice@sip-group.com

1.1 Product Overview

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.

1.2 Manual Version History

Manual Version Number	Date Published
2.1	12/08/2025

2 Warranty

Warranty Registration

SIP proudly offer a 2 year warranty across all SIP branded machines.*

To benefit from the second warranty year, you must register within 30 days of purchase via the link or QR code below.

www.sip-group.com/warranty/register-warranty

***Excludes accessories and consumables**

3 Safety Instructions

3.1 Safety Symbols Used Throughout This Manual

Danger/Caution: Indicates risk of personal injury and/or the possibility of damage.

Warning: Risk of injury or damage due to hot surfaces or materials.

Warning: Risk of electrical injury or damage.

Environment: Draws attention to behaviors and procedures to limit the environmental impact related to the use of the machine.

Note: Supplementary Information.

Important: Please read the following instructions carefully, failure to do so could lead to serious injury, damage to the product or an invalidated warranty.

3.2 Safety Instructions

3.2.1 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.

3.2.2 Delivery, Transport and 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.

3.2.3 Safety Considerations

- 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 sources of ignition/sparks.
- 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.
- 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.

3.2.4 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 electrical leaks and short circuits, as required by current legislation.

3.2.5 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.

3.2.6 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.

3.2.7 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.

Danger: Risk of Electric Shock. Electrocution 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).

3.3 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.

4 Electrical Connections

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe.

You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; a Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by a Residual Current Breaker with Over-Current (RCBO). If in any doubt consult a qualified electrician.

As the colours of the flexible cable of this appliance may not correspond with the coloured markings identifying terminals in your plug proceed as follows:

- Connect the GREEN and YELLOW wire to terminal marked “E” - Earth or ⏚
- Connect the BROWN wire to terminal marked “L”
- Connect the BLUE wire to terminal marked “N”

Danger/Caution: The wires in the power cable of this product are coloured in accordance with the following code: Blue = Neutral, Brown = Live, Yellow and Green = Earth.

This appliance is fitted with a plug which is moulded onto the electric cable (i.e. non-rewirable) please note:

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from most electrical stockists.
5. The fuse in the plug must be replaced with one of the same rating (13 A) and this replacement must be ASTA approved to BS1362.

Warning: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.

Note: Always make sure the mains supply is of the correct voltage and amperage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.

Note: If an extension lead is required in order to reach the mains supply; ensure that this too is rated for the correct voltage and fuse rating.

Note: The cross section of the extension lead should be checked so that it is of sufficient size to reduce the chances of voltage drops.

5 Technical Specifications

Parameter	Value
Supply Voltage	230V @ 50Hz
Motor Power	1.5kW
Weight	GW 89kg, NW 79kg
Maximum Flow Rate	2500m^3/Hour
Filter Accuracy	0.3μm
Sound	75dBA
Diameter of Suction Hose	160mm
Length of Suction Hose	2m
Filtering Material	Polyester Fibre
Filtering Surface Area	8m^2
Filter Air Resistance (@32L/min)	300Pa
Dust Classification	E12

6 Getting to know your SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR

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

(a) The front-right and front-left view of the 05814 SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR.

(b) The rear view of the 05814 SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR.

Figure 1: All round views of the 05814 SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR, showing the location of key components and access points.

6.1 Control Panel

Figure 2: The main control panel of the 05814 SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR.

6.2 Dimensions

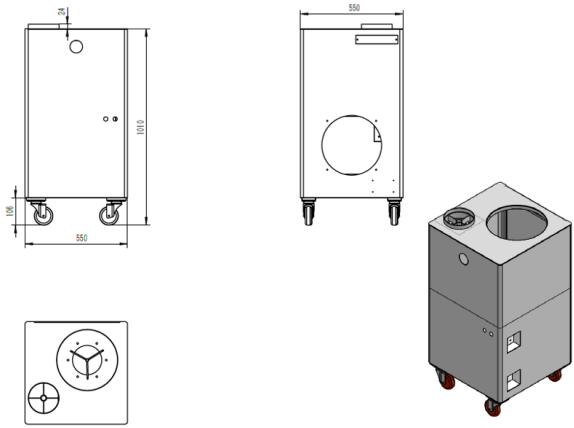


Figure 3: The dimensions and 3D render of the 05814 SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR.

6.3 Installation - Fitting the Arm

The arm is supplied fully assembled, follow the steps below to install it to the body of the welding fume extractor:

- Remove the extractor from the packaging to expose the arm connector/inlet. Ensure the rubber seal is in place, as shown in Figure 4a.
- Offer the arm up to the connection as seen in Figure 4b.
- Align the spigot/pivot pin with the corresponding hole and place in position, as shown in Figure 4c.

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

(a) The top of the 05814 as received when unpackaged.

(b) Connection of the hose with the connection.

(c) The completed assembly of the hose to the body of the fume extractor.

Figure 4: Assembly guidance for fitting the arm to the body of the fume extractor.

7 Operating Instructions

To start and stop the extractor (see Control Panel shown in Figure 2).

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

8 Maintenance

8.1 Filtration Service Intervals

In order to maintain warranty only use genuine SIP spare parts.

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, shown as item 4 in Figure 1a on Page 15. The extractor is fitted with 2 filters:

- Mesh spark arrestor (first stage filtration).
- Main cartridge (second stage filtration).

First Stage Filtration

Mesh Spark Arrestor, SIP Part Number: WE08-00146.

Dimensions (mm)	186 x 186 x 25
Filter material	Aluminium mesh
Regeneration	Yes, washable

Note: Filter should be cleaned at least weekly.

Second Stage Filtration

Cartridge Filter, SIP Part Number: WE08-00142.

Dimensions (mm)	Ø325 x 400
Filter material	Polyester fibre
Regeneration	No

Note: Filter should be cleaned at least 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 and filtration.

8.2 Spark Arrestor Access Removal/Replacement

The spark arrestor mesh is located beneath the arm connection spigot, seen in Figure 5. It is accessible via the small access panel on the side of the extractor, seen in Figure 6.

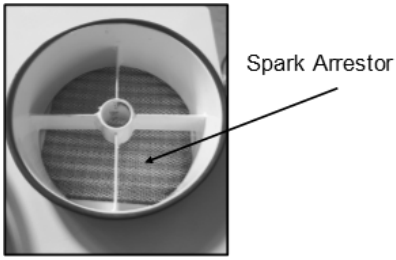


Figure 5: The location of the spark arrestor mesh.

Figure 6: Location of the access panel for the spark arrestor.

- Unscrew the 6 retaining screws and remove the panel.

- The spark arrestor can be slid out.
- The filter can be cleaned with compressed air (with appropriate PPE) and it is also washable.
- Do not re-fit if wet.

8.3 Main Cartridge Filter Removal/Replacement

- The main cartridge filter is accessed via the top of the extractor.
- Remove the Hand Nut from the top of the access panel, shown in Figure 7.
- Remove the access panel and unscrew the retaining nut, shown in Figure 8
- Lift the main cartridge up and out using the 2 lugs, shown in Figure 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.

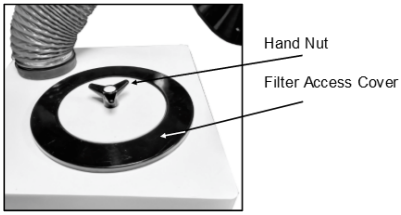


Figure 7: View of the main cartridge filter access panel.

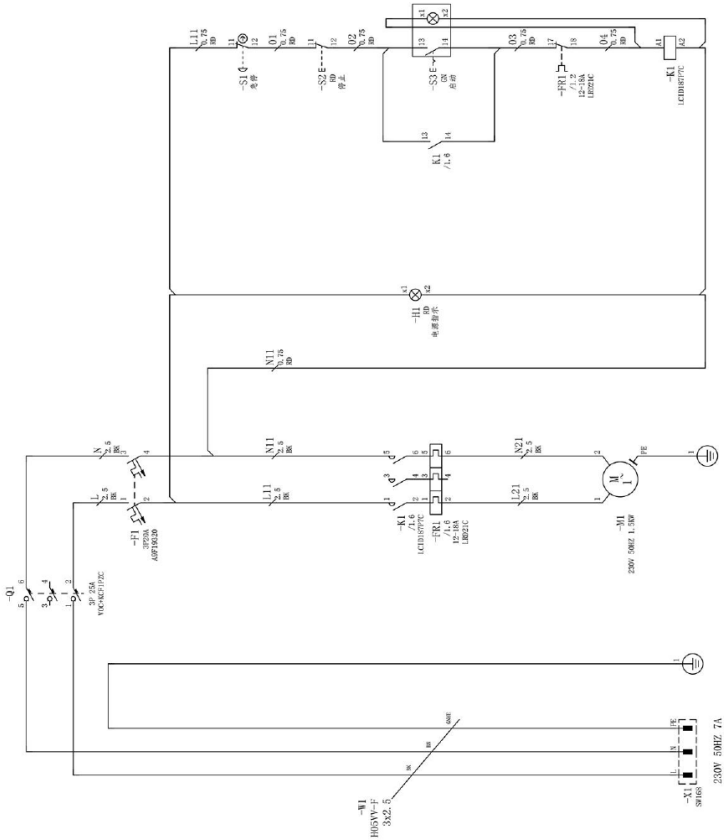
Figure 8: With the hand nut and panel removed, the retaining nut is visible.

Figure 9: The cartridge may now be removed by holding the lugs and lifting from the extractor.

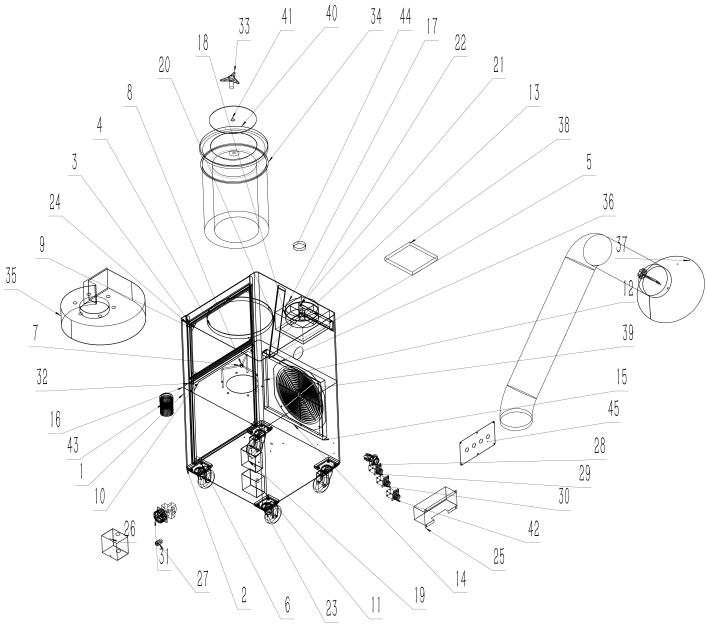
9 Troubleshooting

Problem	Issue	Remedy
Extractor fails to Start.	• Power off. • Blown fuse. • Mains cable issue.	• Check power and condition of power switch. • Test continuity of fuse, replace fuse if no continuity is detected. • Check for visible signs of damage and have replaced by a qualified electrician if necessary.
The power indicator is on but fan does not start.	• Check if start button has been pressed. • Internal fuse blown.	• Check the condition and replace switch/control panel if necessary. • Test continuity of fuse, replace fuse if no continuity is detected.
The extractor has poor/low suction.	• Clogged/dirty filters. • Physical obstructions. • Damaged hose. • Suction hood more than 400mm away from work area.	• Check the condition of the filters and replace if necessary. • Remove any foreign bodies/obstructions. • Check hose and replace if necessary. • Check and set to an appropriate distance.

9.1 Wiring Diagram



9.2 Exploded Drawing and Parts List



Ref no	Description	SIP Product Code
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

Ref no	Description	SIP Product Code
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
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

Ref no	Description	SIP Product Code
36	Fan retainer bracket	WE08-00144
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
45	Button mounting plate	WE08-00154

10 UK - Declaration of Conformity

We

SIP (Industrial Products) Ltd

Gelders Hall Road

Shepshed

Loughborough

Leicestershire

LE12 9NH

United Kingdom

As the manufacturer within the UK, England, Scotland and Wales, declare that the

SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR - 05814

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

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

And the relevent harmonised standard(s), including:

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

Mr. P Ippaso - Managing Director
SIP (Machinery Europe Ltd)
Date: 12/08/2025

11 EU - Declaration of Conformity

We

SIP (Machinery Europe) Ltd

Quayside Business Park

Dundalk

County Louth

Republic of Ireland

As the manufacturer's authorised representative within the EC, declare that the

SIP FX300 PROFESSIONAL WELDING FUME EXTRACTOR - 05814

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

2006/42/EC	**Machinery Directive**
2014/30/EU	**Electromagnetic Compatability Directive**
2014/35/EU	**Low Voltage Equipment Directive**
2011/65/EU	**Restriction of Hazardous Substances**

And the relevent harmonised standard(s), including:

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

Mr. P Ippaso - Managing Director
SIP (Machinery Europe Ltd)
Date: 12/08/2025

CE

12 Notes

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:

T: 01509 500400
E: sales@sip-group.com or customerservice@sip-group.com

SIP INDUSTRIAL

British Assessment Bureau
UKAS MANAGEMENT SYSTEMS
8289
ISO 9001
QUALITY MANAGEMENT

SIP (INDUSTRIAL PRODUCTS) LTD
Gelders Hall Road, Shepshed, Loughborough, Leicestershire, LE12 9NH, UK
www.sip-group.com

SIP (MACHINERY EUROPE) LTD
ASM, Block One, Quayside Business Park, Mill Street, Dundalk, Co. Louth, A91 DP8R, Ireland
www.sip-group.eu