



MAXVAC

FUME
EXTRACTOR
WFE 3500



INSTRUCTION
MANUAL



FUME EXTRACTOR WFE 3500

Carefully read these instructions before use and keep them safely after reading for later reference.

INSTRUCTION MANUAL

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Dear customer,

Thank you for choosing a WFE 3500 Welding Fume Extractor made by MAXVAC.

The WFE 3500 from MAXVAC has been manufactured with the greatest care, and we hope that you will be happy with the WFE 3500 you have just purchased. However, if it does not fully comply with your expectations, please contact your supplier.

The MAXVAC brand was born in Switzerland to provide maximum performance equipment to deal with dust management and provide environmental cleaning solutions.

The MAXVAC team is passionate about providing the most environmentally and ecologically acceptable cleaning solutions to promote clean and healthy environments in the home town and workplace.

The WFE 3500 was specifically designed for the industry.

We are committed to continuous effective improvement in the battle against fine dust.

For more information on our range, please visit www.max-vac.com



CONGRATULATIONS

Congratulations on your purchase, you have obtained a state-of-the-art welding fume extractor system. Only the finest materials surround the finest air purification technology. We hope that you will enjoy your purchase for years to come.

Read ALL instructions carefully before using this product.

FOR YOUR RECORDS

Please record the model and serial number below, for easy reference, in case of loss or theft. These numbers are located on the back panel of your air purification unit. Space is also provided for other relevant information.

Model number

Serial Number

Date of Purchase

Purchased From



SAFETY PRECAUTIONS

In order to avoid possible damages or property losses to yourself and others, please observe following safety precautions.

- **Do not pull a power line during movement or storage.**
- **Do not touch a power plug with wet hands.**
- **Do not damage the power line or power plug.**
Do not cut, modify, pull, excessively twist and wrap the power line. Do not place a heavy object on the power line or squeeze the power line.
Replace damaged power line (if any) by a professional of the Manufacturer's maintenance Department or designated department so as to avoid damage.
- **Do not use the power, socket or connecting device which are overrated, and only use 220V 50Hz AC power.**
- **Do not use it at the place where a child can have an access to it.**
- **Do not use chlorine or acid detergent.**
- **Do not put fingers or metal objects into the air inlet, air outlet and other gaps.**
- **Do not dismantle or modify the air purifier without authorization. Please contact the manufacturer for troubleshooting in case of any fault.**
- **Fully insert the plug into power socket.**
- **Regularly clean the power plug.**
- **Pull out the power plug, and dry it with dry cloth.**
- **Pull out the power plug in case of long term non-use.**
- **Switch off the power before maintenance. In the occurrence of any following circumstances, immediately switch off the power.**
 - If the switch does not work.
 - If a circuit breaker acts or the fuse burns out.
 - If the power line or plug becomes abnormally hot.
 - If burning smell or abnormal sound of vibration is found.
- **In case of any other abnormalities or faults.**
- **Entrust the manufacturer, maintenance center or a qualified technician to replace the damaged power line (if any) so as to avoid danger.**
- **Children or persons suffering disability, perceptual disturbance or mental retardation should use the air purifier under supervision and assistance of the Safety Director.**
- **Do not allow a child to operate the fume extractor without authorization.**



SAFETY PRECAUTIONS

- **Do not place it at the following places. Unstable bearing surface.**
Areas of High-temperature and high-humidity where the fume extractor is possibly damaged.
Prevent volatile substances or combustible goods such as cigarette or incense from entering into the fume extractor so as to avoid fire.
- **Do not clean the fume extractor with alcohol, diluent or other solvent, and avoid surface contact with aerosol bomb.**
- **Do not use the fume extractor in a room where aromatic insecticide is sprayed. [After insecticide is sprayed, open windows to keep the room thoroughly ventilated, and then use the fume extractor].**
- **Do not sit on or lean against the fume extractor so as to avoid possible damage and personal injury.**
- **Correctly insert and extract the power plug so as to avoid damage to the power line.**
- **The fume extractor cannot be used to eliminate carbon oxide. When using with a non-electrical heater, please keep the air flowing.**

WARRANTY

The MAXVAC WFE 3500 is supplied with a 12 month warranty on material and manufacturing defects. Keep (or a copy of) your receipt in order to be able to submit the correct purchase date.

Never try to repair the fume extractor yourself without prior approval from the manufacturer.

The warranty does not include defects that result from normal wear, negligence, incorrect use, repairs without permission and defects caused by connecting the fume extractor to the wrong mains voltage.


Should you determine that your unit requires a service, please contact your local dealer.



WARNING

Please read all of the information provided in this user's guide before operating your new fume extractor unit.

This fume extractor unit is not a medical device. Do not stop or alter any medical therapy programs or medications without the advice of your physician.



CAUTION
RISK OF ELECTRICAL SHOCK
DO NOT OPEN
ATTENTION



Caution: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE BACK COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol calls attention to a feature for which you should read the enclosed literature carefully to prevent operating and maintenance problems.



This symbol indicates that insulated material within your unit may cause an electrical shock. For the safety of everyone, do not remove product covering.

Caution: This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the unit by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the unit.



UNDERSTANDING YOUR FUME EXTRACTOR



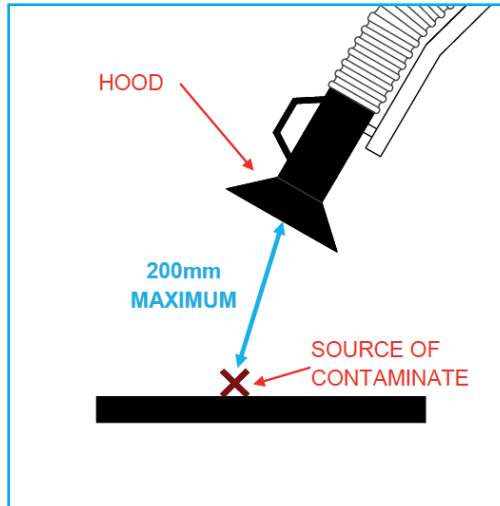
PART	FUNCTION
Hood	Easy to Use Hood with Handle
Filter Housing Unit	Cartridge Filter Cleaning Section
Suction Arm	Flexible Suction Arms
Emergency Power Button	Emergency Stop Function
Control Panel	On/Off Switch, Operating Time Counter, Filter Control & Warning Light



DIRECTION OF USE

1. Use the handle on the hood to position the hood over the working area.
2. Ensure that the hood is within 8" (200mm) as labelled on the hood:

THIS HOOD MUST BE PLACED NO MORE THAN **200mm** FROM THE SOURCE OF EMISSIONS



1. Ensure the unit is switched on.

PLEASE NOTE

The capture distance may differ from the commissioning value. Your Annual LEV Thorough examination and test will highlight any change.

Filters



When removing filters please ensure that the correct PPE is worn to protect against inhalation and Skin contact with contaminate.

The filtration media will require changing at suitable intervals. The filters are disposable and must be thrown away after use. The life of the filters will vary greatly depending upon the usage of the filter. As a guideline the filters should be replaced after 2000 hours approx. continuous use.



FILTER CLEANING

Manual Filter Cleaning

When the filters reach saturation point, filter cleaning warning appears on the panel.

Carry out the filter cleaning process within 2-3 minutes of a clean and dry compressed air hose with a pressure of 5-6 bar as shown in the picture below.

Filter elements are cleaned from coarse dirt, this process extends the life of the filter element.

If you have a model with two filters, do the same for the other air connection. Filter elements are cleaned of coarse dirt



Automatic Filter Cleaning

When the filters reach the saturation point, a filter cleaning warning appears on the panel and the cleaning is automatically activated. It performs cleaning for the set time of 1 minute. The cycle continues until the alarm is deactivated.

For filter cleaning, use a clean and dry compressed air of 5-6 bars.

In addition, every time the machine is turned off, it performs post cleaning. As the filter fullness warning system becomes more frequent and cleaning is not sufficient, the filter should be changed.



FILTER CHANGE

1. Open the filter unit cover.
2. The filter is fixed to a metal profile with a bolt. Unscrew the bolt completely. Prevent a person from falling by holding the filter.
3. Remove the fixing profile.
4. Pass a waste bag over the filter.
5. Fold the waste bag over the edge of the filter cartridge.
6. Operator 1 carefully removes the filter cartridge, while operator 2 carefully folds the waste bag over the entire filter cartridge.
7. Wrap the disposal bag around the filter cartridges and seal tightly (e.g. with cable ties). Used filter cartridges have been removed and ready for disposal.
8. Clean the housing, including the back side of the air guide plate, with an industrial vacuum cleaner. The dust should not be dispersed while doing this.
9. Unpack the new original AVEVO filter cartridges.
10. Check the tightness of the gasket (below) on the filter cartridge and adjust as necessary.
11. Place the new filter cartridges in the housing.
12. Attach the profile and fix the filter with the bolt.
13. Two personnel or a suitable lifting device should be used to position the filter unit.

Dismantling / Disposal

The unit's electronic system and electrical connection should only be done by authorized personnel detachable. Before disassembling, always pull out the mains plug of the unit.

You must wear a respiratory mask and protective clothing in every operation you do is mandatory. We recommend DIN EN 141/143 safety class P3 mask.

Dirty substances and filter elements must be disposed of properly.

Follow the manufacturer's warnings or contact the manufacturer.

We offer you the following services for the smooth operation of the MSU series fume extractor and for the proper disposal of the accumulated dust;
Making a maintenance and repair contract.

You can talk to the service department about these issues.



EMPTYING THE DUST COLLECTION BUCKET

The dust collection bucket must be emptied at regular intervals. This interval varies according to the discharge density, but should be emptied at least once a week. The dust bucket must not exceed a maximum of 25%! (Please contact the authorized person in case of uncertainty!)

- Only authorized personnel can empty the dust collection bucket.
- Remove all personnel other than the operating personnel from the danger area or use protective equipment if necessary.
- The dust collection bucket should be cleaned weekly if possible.
- Disconnect the filter unit from the mains.
- Open the dust collection section cover.
- Pull out the dust collection bucket.
- Take the dust collection bag with the particles in it. Before taking the bag, tie the mouth of the bag with a cable clip or similar fastening method.
- Store or dispose of the dust collection bag by placing it in a container in accordance with the regulations.
- Pass a new bag over the hopper.
- Push the dust collection bucket to the end of the body.
- Close the dust collection section cover.
- Connect the unit's mains connection. (Follow the instructions on the label!)

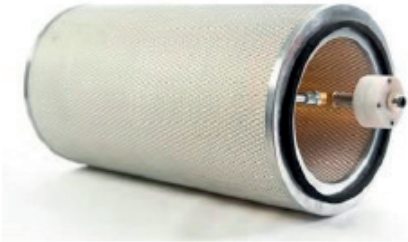


WARNING!

When emptying the dust collection bucket, a suitable respiratory mask should be used and it is appropriate to do it in a well-ventilated area! We recommend a breathing mask with safety class P3 according to DIN EN 141/143. The above-mentioned steps should only be performed by trained personnel! Dispose of dust in accordance with legal regulations!



FILTER MEDIA DATASETS



Properties

- Blend – cellulose 80% / polyester 20%
- Acrylic resin
- Corrugated
- Flame retardant
- Nanofibers on upstream side
- Filtration grade – F9 (EN779:2012)
- ISO ePM1 85 % (ISO 16890)

Features

- Better durability - Perfect for pulse cleaning
- Improved dust release - Longer periods between maintenance
- Lower pressure drop - Extended filter life
- Excellent uniformity – Maintaining quality performance



TECHNICAL DATA SHEET

	Metric	English	Test Method
*Basis Weight	115 ±5 g/m ²	70 ±3 lbs/3000ft ²	TAPPI 410
*Thickness	0.30 ±0.05mm	0.012±0.002 in	TAPPI 411
*Corrugation Depth	≥0.35mm	>0.014 in	TAPPI 411
*Burst Strength	>220 kPa	>31.9 psi	TAPPI 403
*Stiffness	>3.5 mN.m	>3.5 mN.m	TAPPI 543
Max Pore Size	55 ±5 µm	55 ±5 µm	ASTM F316
Mean Flow Pore Size	9 ±3 µm	9 ±3 µm	ASTM F316
Air Permeability	210 ±201/m ² .s@200 Pa	26 ±2 cfm @125 Pa	TAPPI 251
Pressure Drop	95 ±10 Pa	9.7 ±1 mm H ₂ O	TAPPI 251
Efficiency	75 - 85% @ 0.4 µm		EN779:2012
	ePM1 85%	ePM2,5 90%	ePM10 95% ISO 16890



CLEANING & MAINTENANCE

Outside cleaning

Wipe off any stains with a soft cloth. More stubborn dirt should be removed with soft cloth and small amount of neutral detergent. During maintenance, do not scratch the housing with a hard object.

Replacing filters

If the “Replacing Filter” icon lights up, it is time to replace the filter. Undo the finger screws from the back of the unit to remove the back plate. Ensure you install the new filters in the correct sequence and airflow direction.

Maintenance of the dust sensor

After the air purifier has been used for approx 3 months, the air quality sensor should be cleaned to ensure air monitoring accuracy. Open the protective cover of the air quality sensor port, and wipe off dirt accumulated on the cover with a cloth or soft brush. Clean the lens & upper/lower sensor ports of the air quality sensor with slightly damp cotton swab, and then carefully dry it. Reinstall the protective cover.

WARNING: ALWAYS unplug the machine before attempting to replace the UV-C lamp. Never make direct eye contact with the UV-C light. It can cause severe damage.



TROUBLESHOOTING

Possible issues which occur during use are listed below. If you cannot solve the troubles according to following information, please contact your local dealer.

Troubles	Possible Solutions
The unit is not suctioning (No fume extraction)	Connect the suction hose Replace the suction hose Check the suction line and remove the failure necessary
Low Suction power (Low Fume Extraction)	Replace the filter. Apply the change and disposal according to the regulation. Clean with water in accordance with the rules. Push the filter drawers until the sealing is provided correctly. Check the fan rotation direction and change the phase direction. Check the clean air outlet. If necessary, fix the problem. Check the suction path, If necessary, fix the problem.
The System does not activate	Make sure the mains connection is correct. Check the power connections. Ensure the mains connection/
Unusal sounds	Contact the Maxvac technical team.
Insufficient air supply	Clean/replace filters.
Smoke formation or loud noise in the fan	Stop the machine. Contact the Maxvac technical team.
High vibration speed	Contact the Maxvac technical team.
Power intake overvoltage	Check the turning direction of the fan
The fan is not working properly	Stop the machine. Clean the fan.
The circuit breaker is blown	Check the circuit breaker, the cables, and the mains voltage.

Part Replacement

The fume extractor is a maintenance-free device if it is used and stored with care. If you need to replace it, please contact the Manufacturer or authorised dealer.

Caution: Turn off Power Switch if you want to open the front panel of the unit to replace filters or parts.



SPECIFICATION

Model	WFE3500-230	WFE3500-415
Main Power Supply Voltage	220VAC	415VAC
Frequency	50Hz	50Hz
Motor Power	1.5kW	2.2kW
Maximum Flow	3000 m³/h	2500-2600 m³/h
Air Flow at Extraction Point	1200m³/h x2	1270m³/h x2
Protection Class	IP 54	IP 54
Body	Galvanised steel DX51D+Z100-EN 10346	Galvanised steel DX51D+Z100-EN 10346
Fan	Aluminium, w/o weld	Aluminium, w/o weld
ISO Class	F	F
Width x Depth x Height	700x790x1225 mm	700x790x1490 mm
Weight	122 kg	140 kg
Filter	F9 NanoFiber x1	F9 NanoFiber x2
Filter Clean	Rotary type automatic	Rotary type automatic
Noise Level	71dB(A)	71dB(A)
Filter Surface	11m²	22m²
Test Certification	TUV Austria	TUV Austria



SPARE PARTS

Code	Name	Quantity
990.116	NANOFIBER CARTRIDGE FILTER	2
003.006.001	WHEEL WITH BRAKE 80X30	2
003.006.002	WHEEL WITHOUT BRAKE 80X30	2
001.001.021	2.2KW 415V 2800 D/D B34 IE3 WAT MOTOR	1
001.002.002	MV F400-G24 FAN	1
004.600.017	WORKING HOURS (OAG HM-1 220-240V50HZ)	1
004.600.018	BUZZER (FILTER FULL INDICATOR)	1
004.600.015	EMAS EMERGENCY STOP BUTTON (B200EE)	1
004.600.014	FAULT LAMP (AD16-22DS)	1
004.600.011	EMAS LIGHT B3 CONTACT BLOCK	1
004.600.012	LED 220V GREEN BULB	1
003.003.008	MESAN 5MM SMALL METAL KEY WITH NOTCH	1
004.600.013	START STOP BUTTON - B102K20KY (LIGHTED TWIN BUTTON)	1
004.600.031	EMAS EMERGENCY STOP BUTTON COVER	1
002.001.010	FILTER CLEANING SYSTEM (MSU 300 - MSU 350)	2
004.600.009	ENTES TIMER RELAY 240V 8A (MCB7)	2
004.600.063	MOTOR PROTECTION SWITCH SIEMENS (8A 3RV2011-1HA10)	1
004.600.023	SIEMENS 3RH2911 1LA11 CONTACTOR AUXILIARY CONTACT	1
004.001.012	SIEMENS 3RV2901-1E MPS AUXILIARY CONTACT	1
004.600.053	SIEMENS SIGORTA 5SL6320-7 (3X20A)	1
004.001.011	CLIMAIR 2500 DIFFERENTIAL PRESSURE SWITCH	1



COMMONLY ASKED QUESTIONS

Q. What does the Fume Extractor do?

A. The WFE 3500 treats the air in your workplace by filtering out and removing airborne particulate from your breathing space.

Q. How does the WFE 3500 clean the air?

A. The Fume Extractor uses a mixture of HEPA filtration, UVC sterilisation to remove airborne particles and destroy the DNA of airborne microorganisms.

Q. How often will the UVC bulbs need to be exchanged

A. The WFE 3500 UVC bulbs have a 6000h lifetime run time before they need replacing. If you require replacement bulbs, contact your local dealer.

Q. How often will the Filters need to be exchanged?

A. The WFE 3500 filters should be replaced approximately every 6 months and depends on how frequently the machine is run and the environment it is located in. If you require replacement filters, contact your local dealer.

Q. Where should I place the Fume Extractor for optimum effectiveness?

A. The WFE 3500 should be placed as close as possible to any known source, or where the highest intensity of airborne particulates are located.



EU - DECLARATION OF CONFORMITY

Complies with machinery directive 89/392 plus annexes.

Welding Fume Extractor

Models: WFE 3500

MAXVAC, hereby declares the above stated models comply with the following or relevant part thereof:

Machinery Directive:

2006/42/EC (Part 98/37/EC)

Noise Emission Directive:

2000/14/EC

Electromagnetic Capability Directive:

2004/108/EC (Part 89/336/EC)

Low-voltage Directive:

2006/95/EC (Part 89/336/EC)

Filters:

HEPA13 / Carbon / G3

EN 1822-1:2019

ISO 16890-1:2016

UV-C Lamps:

ISO 15858:2016

Manufacturer: MAXVAC, Schweiz.

Date: 1st September 2020.



NOTES



NOTES



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