

FILTER UNI 2.2

INSTRUCTION MANUAL

OBSAH

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1. INTRODUCTION

Dear Consumers!

Company ALFA IN a. s. thanks you for buying our filtration equipment and believe that you will be satisfied with our machine.

FILTER UNI 2.2 is intended for the local exhausting of pollutants generated during welding. The filter can be equipped with one or two suction arms.

Air pollutants generated during welding are fed to a three-part filter set, where mechanical particles are trapped. At devices equipped with fourth filtration stage with activated carbon are also trapped gaseous pollutants. Thereafter, the cleaned air is discharged back to the work area by means of a fan.

FILTERS UNI 2.2 meet the requirements of the CE brand and are manufactured in the EU.

We reserve the law of adjustments and changes in case of printing errors, change of technical parameters, accessories etc. without previous notice. These changes may not be reflected in the manuals for use in paper or electronic form.



2. SAFETY PRECAUTIONS

1. Before use, the instructions given in this instruction manual must be read carefully.
2. All safety regulations must be observed when using electrical devices, to avoid electric shocks, equipment damage, or fire.
3. UNI FILTER must not be used for suction easily flammable or explosive substances. The UNI FILTER is designed for the suction of welding pollutants, not for other applications.
4. Protect the mains cable from high temperatures, oils and sharp edges.
5. The machine must be well stabilized, wheels with the brake must be braked.
6. Before any interference in electrical part, removing the cover or cleaning, the device should be disconnected from the network.
7. Putting the machine into operation can be performed only by trained personnel and only within the technical provisions. The manufacturer is not liable for damages resulting from improper use or handling. For maintenance and repair, use only original spare parts from ALFA IN.
8. The machine must be positioned so that the air can exit the vents without restriction.
9. The handling handle is intended for moving only, it is not designed for lifting the machine.
10. All interventions in the el. equipment as well as repair should be performed by an authorized person.
11. With competent mains voltage and input must match the plug.
12. It is necessary to protect the machine against:
 - a. Moisture and rain
 - b. Mechanical damage
 - c. Draft and possibly ventilation of neighboring machines
 - d. Rough treatment
 - e. Chemically aggressive environments

3. TECHNICAL DATA

Suction arm	pcs	1
Mains voltage	V/Hz	1x230/50
Machine air flow rate	m ³ /h	1480
Maximum extractor fan flow rate	m ³ /h	2500
IP protection class		IP 55
Filtration efficiency according to EN 1822 (G2)	%	25
Filtration efficiency according to EN 1822 (G4)	%	70
Filtration efficiency according to EN 1822 (E12)	%	99,5
ISO insulation class		F
Sound pressure level	db (A)	73
Dimensions (w x l x h)	mm	600 x 800 x 1200
Weight without arm	kg	100 kg

4. DESCRIPTION OF THE APPLIANCE

MAIN PARTS

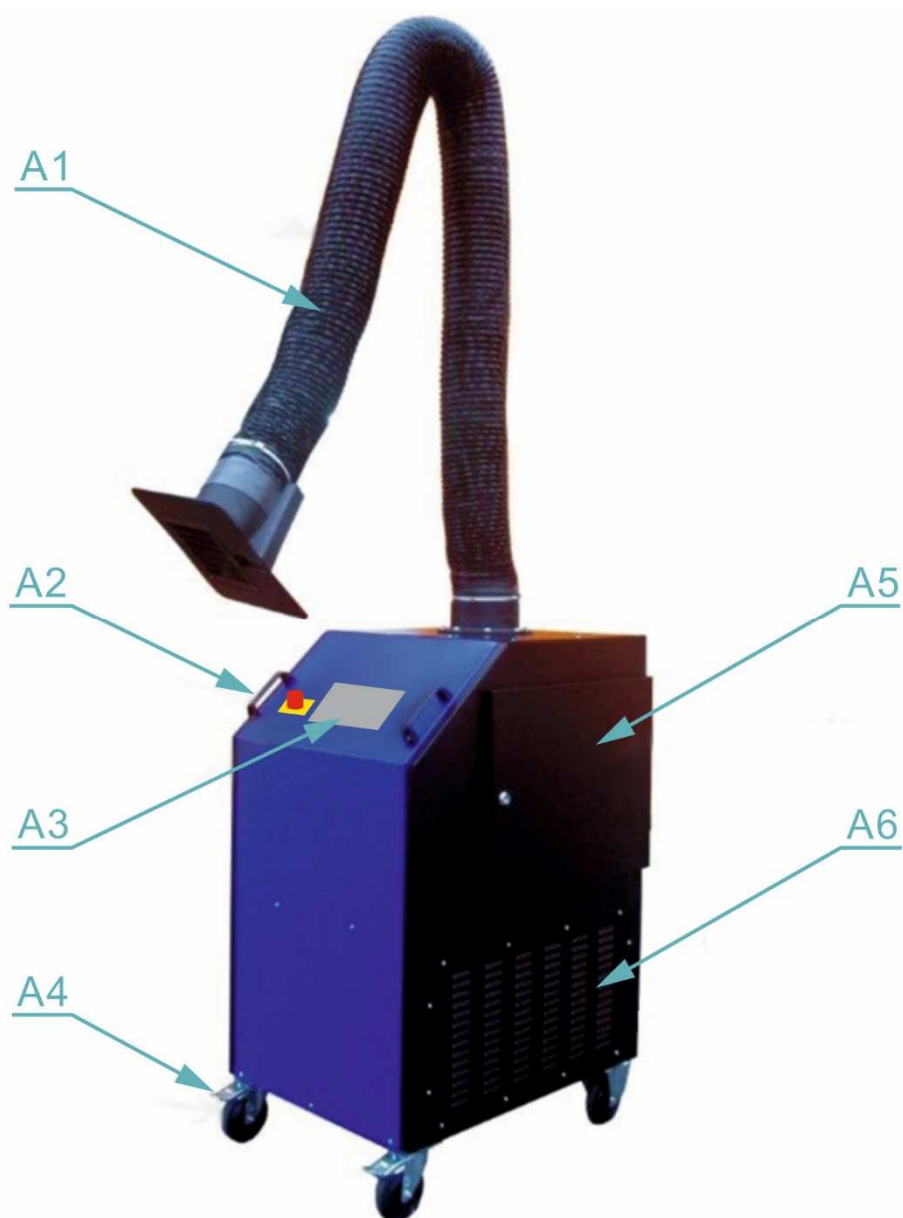


Figure 1 – Main parts of the machine

Pos.	Description
A1	Suction arm
A2	Handle
A3	Control panel
A4	Wheel with brake
A5	Door for filters replacement
A6	Exhalation and carbon filter attachment point

CONTROL PANEL

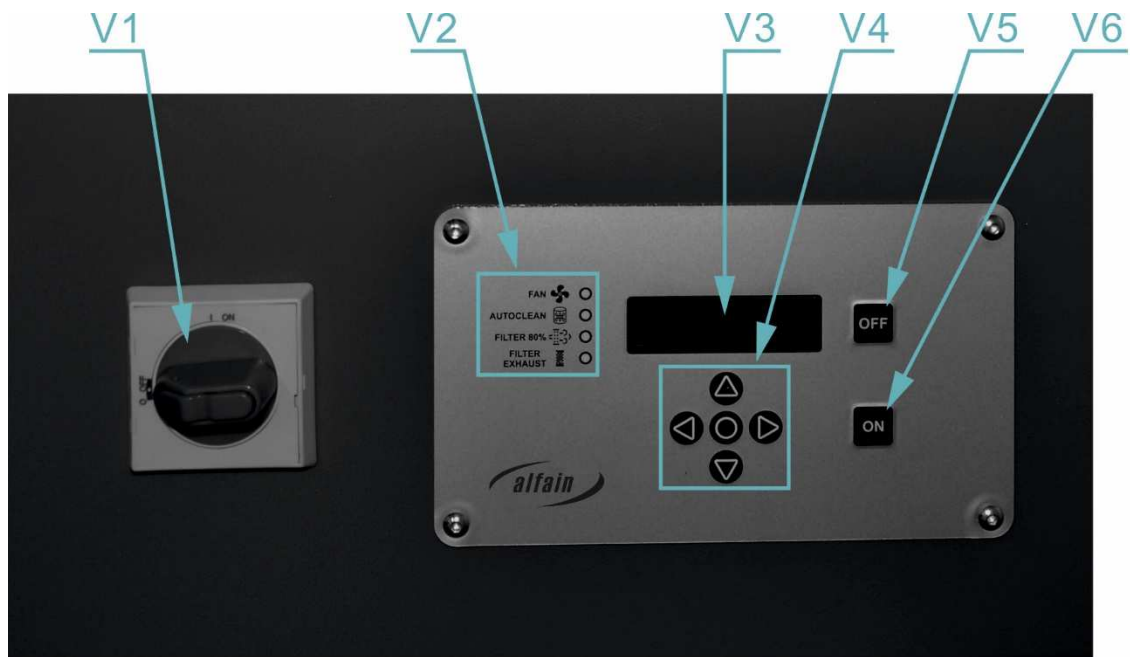



Figure 2 – Control panel

Pos.	Description	
V1	ON/OFF switch	
V2	LED diodes	
		fan on
		self-cleaning valves on (if function enabled)
		dirty filter warning (600 h)
		clogged filter warning (on – if function enabled)
V3	Display	
V4	Control buttons	
V5	OFF button	
V6	ON button	

BUTTON LAYOUT

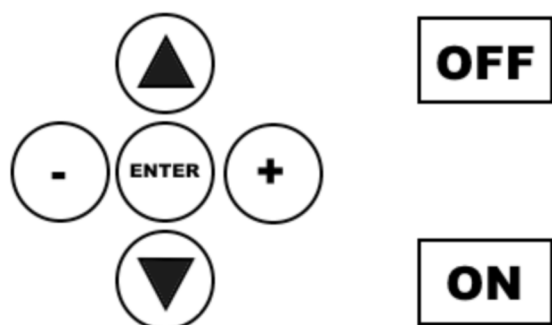


Figure 3 – Button layout

5. GETTING STARTED

ARM ASSEMBLY

Depending on the model, the FILTER UNI is equipped with one or two suction arms.

Screw the suction arm tightly by means of the enclosed screws through the holes in the flange to the holes in the top cover.

GETTING STARTED

1. Switch on the machine with the mains plug. The mains connection must correspond to the technical parameters of the respective hood type in this manual.
2. Turn the machine on by rotating the ON/OFF switch **V1** to the position ON and then long pressing the **ON** button (pos. **V6**) on the control panel, the **ON** button lights up.
3. If the LED **V2 – DIRTY FILTER** on the control panel lights up, it is necessary to clean or replace the filters.
4. The other buttons **V4** are used to control the specific functions, which differ according to the specifications shown on the **V3** display.
5. Adjust the suction arm so that the suction nozzle will be placed from the side 30 – 50 cm above the welding point.
6. After finishing the work, turn the machine off by means of the long pressing the **OFF** button (pos. **V5**) – the **OFF** button lights up, then rotate the ON/OFF switch **V1** to the position OFF – the **OFF** button goes out.

MACHINE CONTROL

Turn the machine on by means of the long pressing the **ON** button (pos. **V6**). After finishing the work, turn the machine off by means of the long pressing the **OFF** button (pos. **V5**). The other buttons **V4** are used to control the specific functions, which differ according to the specifications shown on the **V3** display.

SPECIFICATIONS SHOWN ON THE DISPLAY

- Model / status (ON / OFF)
- Hour meter
- Filter clogging alarm (pressure switch)
- Dirty filter alarm (600 h)
- Serial number

The navigation between the various screens is done using the ▲ and ▼ buttons. After pressing any button, the **V3** display automatically returns to the original display of model / status after 60 seconds. If there are active alarms, the main screen is displayed in alternation with the alarm screen in which the numerical code of the alarm is indicated and the descriptive message.

MENU AND PASSSSWORD

There are 4 menus:

- Test menu
- User menu
- Service menu
- Factory menu

The navigation between the various screens is done using the ▲ and ▼ buttons, the selection of a submenu or exit from a menu is done by pressing **ENTER** above the corresponding item. Changing a menu item (if enabled) occurs using the - and + buttons. In menu mode the arrows ↑ and ↓ are shown on the display to indicate whether the buttons ▲ and ▼ are enabled, the symbols - and + if the modification of the menu item is enabled and the symbol ↵ if the **ENTER** button is enabled (the entry is associated with the access to the submenu or exit from the menu).

Access to the user, service and factory menus is performed with the machine switched off by means of the long pressing special buttons combination and the password.

Menu	Buttons combination	Password
User	ENTER	ENTER, ENTER, ENTER, ENTER, ENTER, ENTER

The user menu consists of the following items:

- **LANGUAGE:** language selection for menu displays (except test menu, only in English) and status / operation
- **EXIT:** exit from the menu

MACHINE SPECIFIC FUNCTIONS

Hour meter

Stores the count of hours the machine has been ON, with a 10 minutes resolution (the count displayed is in hours). The count of hours is saved automatically every 10 minutes, so if the machine loses electric power the maximum operating time lost in the ON state is 10 minutes. When an alarm occurs the hour meter is saved immediately, so in case of loss of power supply immediately after an alarm nothing goes lost.

Alarms / warnings

Alarms and warnings are generated in the event of an anomaly only with the machine ON. To restore them it is necessary to turn the machine off, enter the service menu - reset alarms and enter the appropriate password. After the restoration if anomaly conditions persist alarms / warnings will be generated again when the machine is turned ON. Alarms not restored are re-activated in case of disconnection and subsequent connection of the power supply. Below is the list of alarms as they appear on the display **V3**:

- **W01 – DIRTY FILTER:** dirty filter warning (threshold defined by the DIRTY parameter FILT. EDGE of the factory menu, which can be disabled, only for the machines with analogic pressure switch or 600 h)
- **W02 – EXHAUST FILTER:** warning of exhausted filter (threshold defined by the parameter EXHAUST F. EDGE of the factory menu or by the digital pressure switch if enabled)

6. MAINTENANCE

FILTERS REPLACEMENT

The service life of the filters and the replacement intervals vary according to the different applications of the extractor. If the filter is clogged, the LED **V2 – DIRTY FILTER** on the control panel lights up.

Filters compartment door A, B, C must be unlocked. First pull the filter frame C (bottom). The other two filters can then be removed more easily.

It is important to keep in mind that it may be difficult to remove individual filters due to sealing around the filter perimeter. The seals hermetically seal the entire filtration assembly to ensure filtration through the maximum filters area.



We recommend replacing all three filters at the same time at least once a year to ensure maximum filtration efficiency - our replacement filters are cheap compared to most competitors.

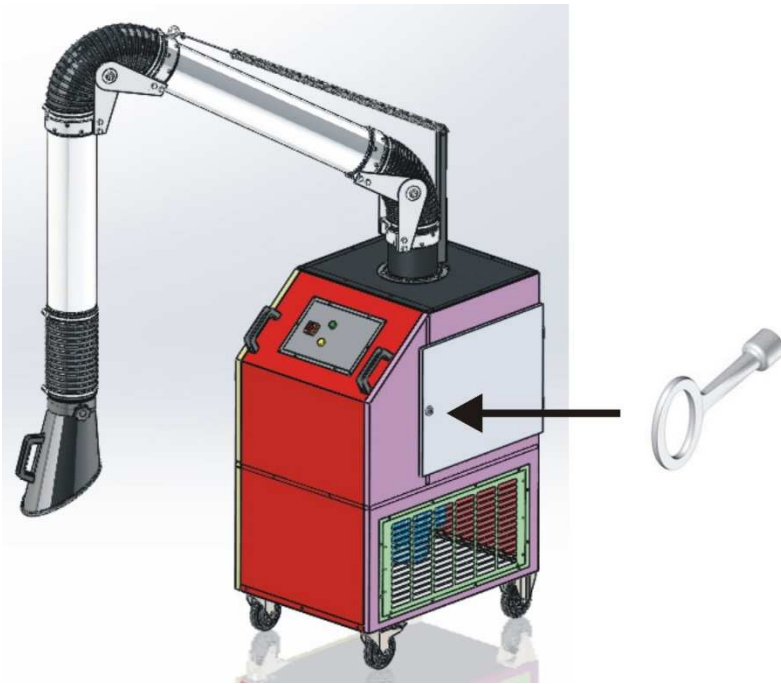


Figure 4 – Unlocking the filter compartment

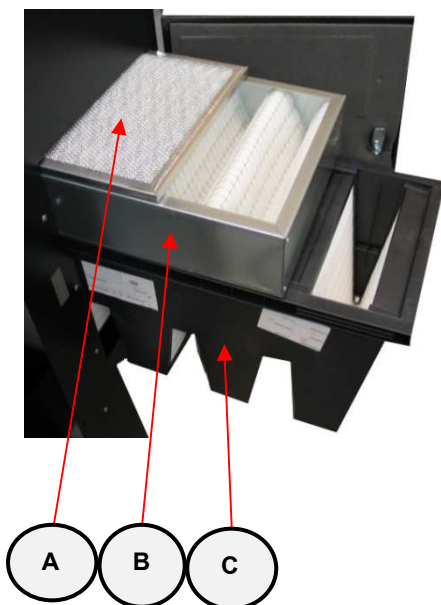


Figure 5 – Filters replacement



Figure 6 – Filters activated carbon replacement

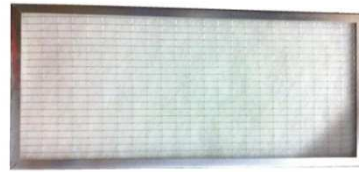


Figure 7 – Polyester microfiber filter

To replace the activated carbon filter, unscrew the panel with vents, remove the old filter and in its place screw the new filter. Do the same on the other side of the extractor. Spare activated carbon filters are supplied as a pair. If you don't fit the extractor with the pair of activated carbon filters, it is advisable to attach the pair of microfiber filters in their place in the same way (order. No. 5.0507) - they ensure the reduction in noise levels.

BASIC INFORMATION ABOUT FILTERS

Pos.	Code	Description	Cleaning	Flammability
A	5.0232-1	Aluminium mesh filter	Yes - washable	Non-flammable
B	5.0233-1	Polyester corrugated filter	Yes – with shake	DIN 53438 F1
C	5.0234-1	Rigid pocket filter	Yes with qualification * – by compressed air	M1
	5.0235-1	Filter activated carbon	No	
	5.0507	Polyester microfiber filter	Yes with qualification * – by compressed air	DIN 53438 F1
ABC	5.0231-1	Set of filters	See A, B, C	See A, B, C

* When cleaning the filter with compressed air, you have to solve the efficient exhausting of the blowing dust – for example with our equipment Kit for cleaning the filters with compressed air.

RECOMMENDATIONS FOR MAINTENANCE AND DISPOSAL OF FILTERS

A – METAL FILTER – FIRST FILTRATION LEVEL



We recommend washing this filter at least once a week to ensure maximum filtration efficiency.



The metal filter is made of inert materials, which – unless they are contaminated with toxic-harmful substances – can be disposed of as mixed municipal waste.

B – POLYESTER FILTER - SECOND FILTRATION LEVEL



We recommend cleaning this filter at least once every two weeks to ensure maximum filtration efficiency.



The polyester filter is made of inert materials, which – unless they are contaminated with toxic-harmful substances – can be disposed of as mixed municipal waste.

C – POCKET FILTER - THIRD FILTRATION LEVEL



We recommend cleaning see BASIC INFORMATION ABOUT FILTERS or replace this filter at least once a month to ensure maximum filtration efficiency.



The pocket filter is made of inert materials, which – unless they are contaminated with toxic-harmful substances – can be disposed of as mixed municipal waste.

FILTER ACTIVATED CARBON - FOURTH FILTRATION LEVEL

The activated carbon filter is made mainly of carbon in the form of graphite micro-crystals modified to have a maximum porous structure with a large surface area. Due to this characteristic, they have a high capacity to absorb many substances.



We recommend replacing this filter at least once a year to ensure maximum filtration efficiency.



The filter activated carbon is made of inert materials, which – unless they are contaminated with toxic-harmful substances – can be disposed of as mixed municipal waste.

MAINTENANCE PROGRAM OF THE EXTRACTOR

Type of inspection or maintenance	Method	Frequency
Total control of the extractor	Visually	Daily
Cleaning	Manually	See note A
Seal control	Visually	150 h
Tightening control of nuts and crews	Manually	150 h
Filter clogging control	Visually or manually	600 h, see note B
Fan control	Manually	See note C
Replacement of bearings	Manually	40 000 h, see note D

NOTE A

The cleaning interval is variable depending on the type of dirt suction air. The user must therefore set the interval to ensure the highest possible cleanliness of the extractor; deposits on fixed parts must not exceed 5 mm of thickness.

NOTE B

On the front panel is LED **V2** of clogged filter warning. However, we recommend that you check for clogging whenever the operator feels that the suction power is reduced. The entire filter assembly should be replaced at least once a year, even if the clogging indicator does not indicate this.

NOTE C

The fan must be inspected at intervals specified by the user to check the good condition of the fan – especially check the cleanness of the propeller and the perfect condition of the engine.

NOTE D

40 000 hours is the life of the bearings. However, external factors such as increased vibration for a certain running time may reduce bearings life. At the end of their specified service life, bearings should be replaced even if their condition appears to be good.

TROUBLESHOOTING

Symptom	Reason	Solution
The fan does not run.	The mains voltage is too low.	Check mains voltage.
	Missing power supply.	Check the plug or socket connection.
Fan start failure.	Missing power supply.	Check the plug or socket connection.
	The engine is damaged.	Let replace engine.
	The safety microswitch is open or damaged.	Check that the filter compartment door is closed, that the microswitch is activated. If necessary, have the microswitch replaced.
The LED of dirty filter is on.	The filters are clogged.	Replace the filters.
The power-on LED is off.	Poorly inserted plug in the socket.	Check plug and socket.
	The electrical power supply to the control panel is defective.	Check the supply to the control panel.
	Open electrical circuit inside the machine.	Check the electrical circuits in the machine.
	The LED is burned.	Replace the LEDs.
Energy consumption is higher than stated in the technical data.	The engine runs with lower speed than desired.	Check the power supply. Check the motor windings for faults and replace the motor if necessary.
The machine vibrates considerably.	Unbalanced rotating components.	Check the balance of rotating components.
	Allowed or unsatisfactory anti-vibration device.	Check the anti-vibration devices for tightness and condition.
	Clogged filters.	Check the condition of the filters and replace if necessary.
	Air leaks.	Check the machine housing for leaks. If necessary, block with silicone.
	Unbalanced propellers.	Check the propeller condition. If it is dirty, clean it.

PROVISION OF WARRANTY

1. The content of the warranty is the responsibility that the delivered machine has at the time of delivery and during the warranty period, it will have the properties specified in the binding technical conditions and standards.
2. The responsibility for defects that occur on the machine after its sale within the warranty period lies in the obligation to repair the defect free of charge by the machine manufacturer or by a service organization authorized by the manufacturer.
3. The statutory warranty period is 6 months from the sale of the machine to the buyer. The warranty period begins on the day the machine is handed over to the buyer, or the day of possible delivery. The manufacturer extends this period to 24 months. The warranty period does not include the period from the application of a justified complaint until the machine is repaired.
4. Condition of warranty is that the welding machine is used appropriately and for the purpose for which it is intended. As defects are not recognized extraordinary wear and damage, which arose from insufficient care or neglect of even seemingly insignificant defects, failure to fulfill the obligations of the owner, his inexperience or reduced abilities, failure to observe the instructions given in the instruction and maintenance manual, using the machine for purposes for which it is not intended, by overloading the machine, even temporarily. Only the manufacturer's original parts must be used for machine maintenance.
5. No modifications or alterations to the machine that may affect the functionality of the machine components are allowed during the warranty period.
6. Warranty claims must be made immediately after the production or material defect has been found at the manufacturer or vendor.
7. If the defective part is replaced during warranty repair, ownership of the defective part is transferred to the manufacturer.
8. As a warranty list serves proof of purchase (invoice) on which is the serial number of the machine, eventually a warranty list on the last page of this manual.

7. DISPOSAL



Only for EU countries. Do not dispose of electric tools together with household waste material.

In accordance with European Council Directive 2002/96/EC on electrical and electronic equipment waste and its implementation in accordance with national law, electric tools that have reached the end of their service life must be collected separately and returned to an environmentally compatible recycling facility.

8. WARRANTY LIST

As a warranty list serves proof of purchase (invoice) on which is the serial number of the machine, eventually a warranty list below, which is filled in by an authorized dealer.

Serial number:	
Day, month (written in words) and year of sale:	
Stamp and dealer signature:	