

**NOTES:**

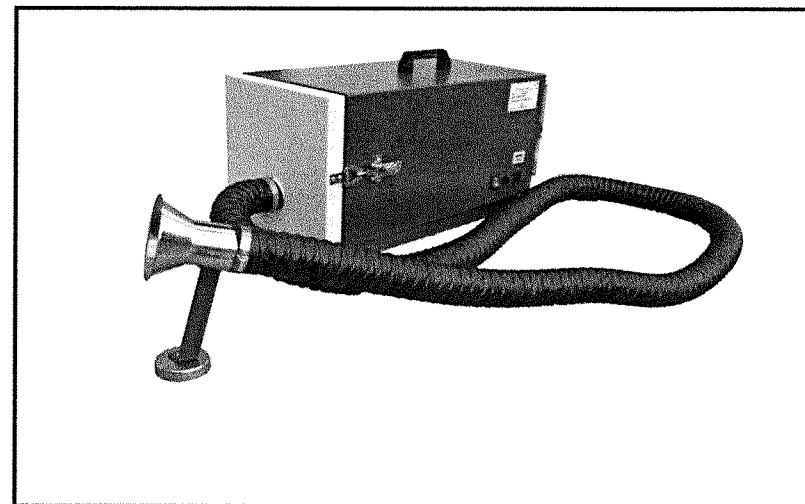
SISTEMI DI ASPIRAZIONE  
E DEPURAZIONE

SYSTEMES D'ASPIRATION ET  
FILTRATION

EXTRACTION AND FILTRATION  
SYSTEMS

REINIGUNGS-UND  
ABSAUGANLAGEN

**USER MAINTENANCE MANUAL  
PORTABLE WELDING FUMES  
FILTRATION UNIT  
SERIES *MINI 90***



Make sure that you keep this booklet in a suitable clean and dry place so that it will remain undamaged. We reserves the right to modify the content of this manual, without any prior notice and without any obligations on its own part, so as to include any variations and improvements to the units already supplied. The reproduction or translation of any part of this booklet without prior written authorization from the manufacturer is strictly forbidden.

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## NOTES:

## 1. INTRODUCTION

The machine described in this booklet is a portable unit for extracting, filtrating and deodorizing welding fumes for light welding operations in electronic industries and in car repairing workshops. After passing through a rotary nozzle and a flexible hose having diameter 60 mm, the polluted air reaches a filter cartridge. The final deodorization is obtained by means of a filter with active carbons.

Upon delivery of the machine, make sure to check that it has not suffered any damage during transportation. Should you find that the machine is not completely intact, get in touch with our dealer immediately and do not use it.

The machine must be used exclusively for the purposes for which it has been built.

We declines all responsibility for any damage to persons or things resulting from improper use of the product.

## 2. TECHNICAL CHARACTERISTICS

### 2.1 Technical data

Weight [kg]	20
Engine (Supply voltage/Frequency) [V/Hz]	220/50
Engine (Power) [W]	1150
Capacity (air flow rate) [m <sup>3</sup> /h]	140
Total pressure [mm H <sub>2</sub> O]	2400
Noise Level [dBA]	73
Flexible Hose (Ø/Length) [mm]	60/3000
Filtering Surface [m <sup>2</sup> ]	1,03
Activated Carbons (Weight) [kg]	2

Table 1 – technical parameters

#### 2.1.1 Highest Efficiency

The high-quality filtering materials of this machine make it possible to obtain an interception efficiency of over 99%. Moreover activated carbons remove almost all odours.

#### 2.1.2 Low Noise Level

Low noise level is possible thanks to the disposition of the inner filters and to their high absorption efficiency, and also thanks to the sound absorbent materials used in conjunction with a powerful exhaustor.

#### 2.1.3 Handiness

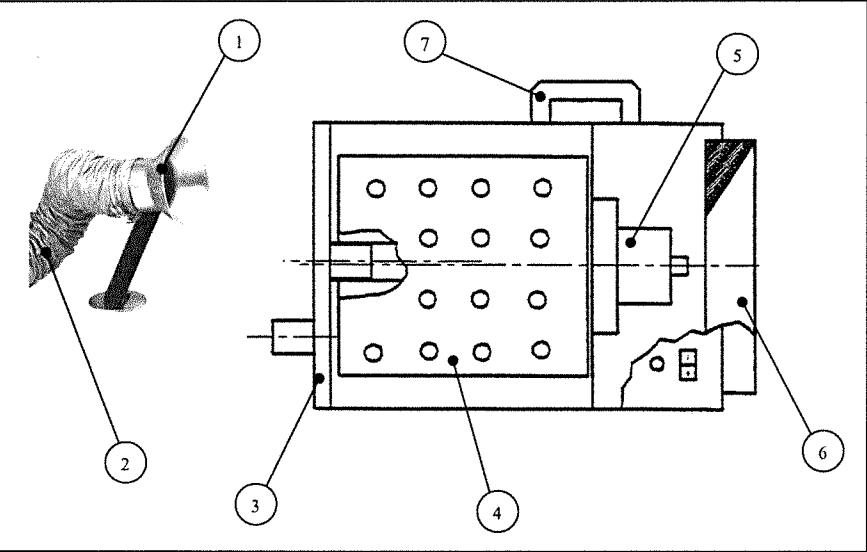
Welding fumes should always be extracted before they reach respiratory tract. Fresh and pure air is a condition that can not be given up in a salubrious working place. The solution is to extract the air where pollution takes place by means of small and easily-handled nozzles.

The easily portable, light but reliable *MINI 90* is the right solution of the a.m. problems.

2.2 Working mode

Polluted air is extracted by means of the nozzle (part. 1, picture 1), equipped with a magnetized base that allows its safe placing. It passes through the flexible hose (part. 2, picture 1) and reaches the machine inlet flange (part. 3, picture 1), when there's a labyrinth that prevents sparks from reaching the paper filter (part. 4, picture 1). The air flow passes the paper filter and then the cell with activated carbons (part. 6, picture 1).

Inside the machine, made up of a sturdy painted sheet steel, there's the electric engine (part. 5, picture 1).



picture 1 – MINI 90 PARTS

Pos.	Description
1	Nozzle with magnetized base
2	Flexible hose Ø60, L=3000 mm
3	Machine inlet flange
4	Paper filter
5	Electric engine
6	Activated carbons cell
7	Handle

Table 2 – MINI 90 PARTS

NOTES:

## 10. CONFORMITY DECLARATION

**CONFORMITY DECLARATION**  
DIRECTIVES 2006/42/CE, 2014/35/UE, 2014/30/UE

In the person of our legal representative declares under our own responsibility that the product:

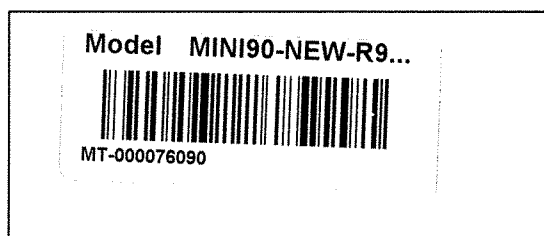
PORTABLE UNIT FOR FILTRATION OF FUMES

MODEL : **MINI 90**

To which this declaration is referred, is in conformity to what prescribed in directives 2006/42/CE, 2014/35/UE, 2014/30/UE.

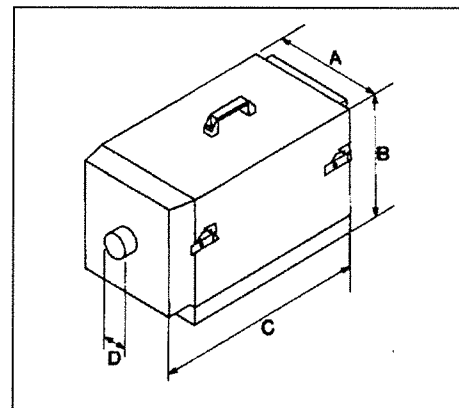
We further precise that:

- The manufacturing year is quoted on the label (with EC mark) placed on the machine;
- A copy of the manufacturing technical dossier, according what prescribed in the directive, is kept in our Company
- The serial number of the machine is quoted directly on it.



9/05/18

## 2.3 Overall Dimensions



picture 2 – *MINI 90* overall dimensions

Measure	Dimension
A	280 mm
B	342 mm
C	534 mm
D	60 mm

Table 3 – *MINI 90*  
overall dimensions

## 3. GENERAL USE AND SAFETY DIRECTIONS

- Never leave packing material (such as foam polystyrene, rivets, carton, wood and so on) within children reach, since it could be dangerous.
- Before connecting the system, make sure that the connection point to the supply mains, implies the presence of all necessary guards as foreseen by the Standards in force; also make sure that the aforementioned connection point is compatible with the system supply mains.
- This equipment is to be used solely according to the purposes for which it was expressly realized. Any other kind of use is to be considered as improper and dangerous. We are not liable for any damages due to an improper use of the equipment.
- Before connecting the equipment, make sure that the ratings correspond to those of the supply mains.
- Do not carry out maintenance operations when the machine is running or connected to the electric power source. During these operations make absolutely sure to disconnect the machine from the power supply line.
- If the machine does not operate properly DISCONNECT IT AND LET KNOW THAT IT'S OUT OF ORDER. Apply to our After-Sale Service for repairing it and ask for original spare parts. The non-observance of what has been mentioned above could endanger the equipment safety.
- We advise the use of this machine only to responsible and duly qualified staff in areas inaccessible to children.
- Should you decide not to use the equipment any more, we recommend you to disable it by disconnecting it from the supply mains and to dismantle it according to the regulations in force in your Country.
- In case of accidental fall or nasty bumps, do not use the machine and contact our After-Sale Service immediately since the equipment safety could be endangered.
- Work and keep the machine in a dry and sheltered place
- **Do not disperse used filters in the environment, but deliver them to firms specialized in removal according to regulations in force.**

- The use of the filtering unit for filtering and purifying fumes coming from operations such as debarring, smoothing, grinding and for sucking inflammable vapours is forbidden

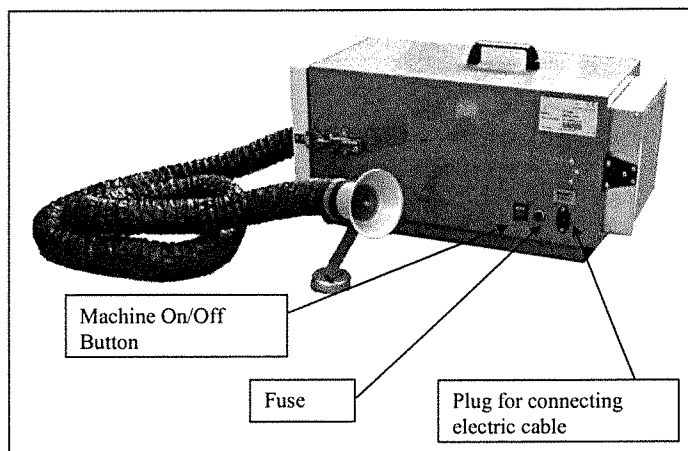


**Do not carry out any maintenance procedures when the equipment is connected to the supply mains. During this phase, we recommend you to disconnect it.**

### 3.1 Use Directions

In order to use the machine properly do as follows:

1. By means of its handle (part. 7, picture 1); place the machine near the polluting fumes source;
2. By means of its magnetized base, place the nozzle where you have to extract fumes;
3. Connect the power supply cable to the external plug on the machine (picture 3);
4. Connect the power supply cable to the main electric grid (after making sure that the ratings written in this booklet and on the machine correspond to those of the supply mains);
5. Press the starting button placed on the machine side. When it is in the position 1, a light inside the button will show that the machine is in its ON position (picture 3);
6. When suction is not needed any more press again the button (position 0). The light in the button will die out (picture 3);
7. Disconnect the power supply cable from the power source and from the external plug. Place the machine where it can not cause problems to or hinder workers during their usual activities.



PICTURE 3

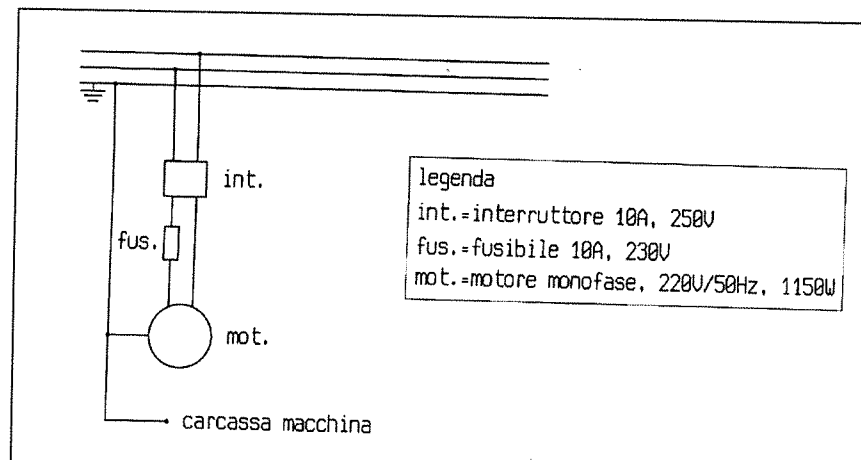
## 9. SPARE PARTS

When ordering a spare part please refer to the model of the machine in your possession.

E.G.: Refill Bag with 2 kg active carbons for portable filtration unit Model *MINI 90*.  
You are recommended to use original spare parts.

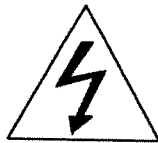
POS.	DESCRIPTION
1	Nozzle (part.1, picture 1)
2	Flexible hose Ø60/ L=3000 mm (part.2, picture 1)
3	Filtering cartridge – paper filter (part. 4, picture 1)
4	Refill bag with 2 kg activated carbons
5	Handle (part. 7, picture 1)
6	Electric engine (part. 5, picture 1)

## 7. WIRING DIAGRAM



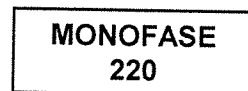
Picture 5 – wiring diagram

## 8. DESCRIPTION OF STICKERS



Picture 6

Sticker indicating that there are parts live inside the machine.



Picture 7 – single-phase engine, Voltages : 220 V

Sticker indicating that the electric engine is single-phase and that it has to be fed with 220 V.

## 4. PRELIMINARY CHECKS AND INSTALLATION

When supplied, the machine is contained in a single packaging. The operator shall do as follows:

- Unload the packaging
- Carry out the unpacking
- Make sure that the packaging contains all parts and that they were not damaged during transport otherwise contact our Reseller.
- Place the flexible hose on the inlet flange of the machine and fasten it by means of the hose clamp;
- Connect the power supply cable to the main electric grid (after making sure that the supply voltage/frequency are 220 V/50 Hz);
- Use the machine as described in paragraph 3.1 *Use direction*.



**Before connecting the machine to the main electric grid, make sure that the ratings on the machine correspond the ones of the supply mains**

## 5. MAINTENANCE

Do not carry out any maintenance procedures when the machine is connected to the supply mains. During this phase we recommend you to disconnect the cable from the power supply mains. For a keeping a good machine efficiency, do as follows:

- Check the feed cables on a daily basis
- Keep the machine in a sheltered place
- Make sure that the flexible hose is not damaged in any point

The state of the filters should be controlled with a periodicity which will depend on type of welding and frequency by which it is carried out. If during the use of the machine any type of reduction extraction capacity should be noted, that will most probably be due the excessive clogging of the filters. In that case then it will be necessary to proceed with the substitution of the filters as indicated in the following paragraphs.

### 5.1 Replacing the Paper Filter

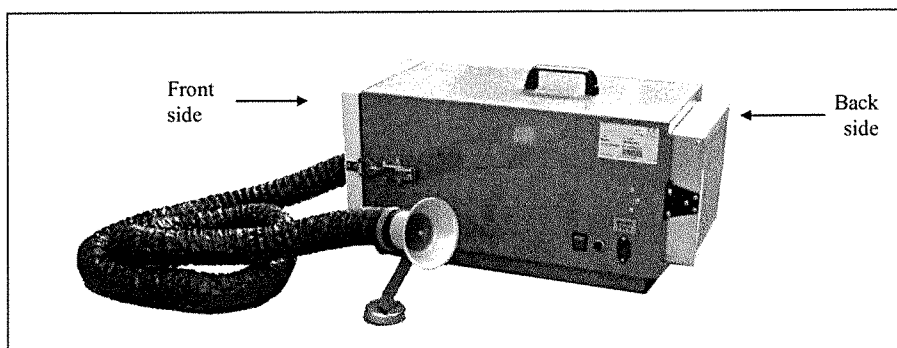
The paper filter is part no.4 of picture 1.

1. Make sure that the machine is disconnected from the power supply mains. Then loosen the clips of the cover (front side - reference fig. 4) and open it;
2. Unscrew the blade-screw;
3. Take away the bar;
4. Take out the filter and insert the new one, making sure that it is well inserted;
5. Replace the bar in its original position;
6. Screw the blade-screw again;
7. Close the cover carefully by means of its clips.

### 5.2 Replacing the Filter with Activated Carbons

The filter with activated carbons is the part no. 6 in picture 1.

1. Make sure that the machine is disconnected from the power supply mains. Then loosen the clips fastening the cell (back side - reference fig. 4) and take it away;
2. Unscrew the four screws on the cell and replace the carbons with the new ones. Then screw the screws again;
3. Refasten the cell with the new activated carbons by means of the clips.



picture 4 – Front/back sides

## 6. TROUBLES AND CURES

**Make sure that the machine is switched off and disconnected from the supply mains before carrying out any maintenance or repair procedures. Make also sure that these procedures can not cause any damages to things or people.**

**Always apply to Qualified Personnel.**

Troubles	Causes	Cures
Machine fails to start up	The Fuse has burnt out	Check its state (it is placed near the star up button - picture 3)
	Too low voltage	Check the supply mains voltage
	The electric engine is mis-working	Contact our After-Sale Service or professionally qualified staff
The emitted air is not purified enough	Inefficacious action of filters	Check their state and replace them (ref. to chapter 5 <i>MAINTENANCE</i> )
The machine does not develop a sufficient aspirating capacity	Filters are clogged and dirty	Check their state and replace them (ref. to chapter. 5 <i>MAINTENANCE</i> )
	Physical obstructions and/or blockages	Check whether there are any foreign bodies inside the hose. Take them away
	The hose is broken or damaged	Check its state and if it's damaged replace it.
	The electric engine is mis-working	Contact our After-Sale Service or professionally qualified staff
Fuses of main electric system burn out and/or differential relay device -ground fault interrupter trips	Short circuit (in electric motor)	Contact our Technical Service or professionally qualified staff to carry out a more precise check.



**ALWAYS CONSULT A QUALIFIED PERSONNEL**