

USE AND MAINTENANCE MANUAL ECOARGON UNO – ECOARGON DUE





FILCAR SPA thanks you for having purchased a product from its range and invites you to read this manual.

It contains all necessary information for the purchased machine to be used correctly; the user is therefore kindly requested to carefully follow the warnings herein and read it in its entirety.

You are also kindly requested to keep this manual intact in a safe place.

The contents of this manual may be amended without prior notice, or further obligations, in order to include variations and improvements to the units already shipped.

The reproduction or translation of any part of this manual is forbidden, without the owner's written notice.

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1. INTRODUCTION

The ECOARGON UNO and ECOARGON DUE models described in this manual are wall-mounted extraction systems for one or two work stations.

The ECOARGON UNO and ECOARGON DUE kits contain material necessary for the realisation of an extraction system exhaust gas emitted by vehicles inside closed ambients.

Thanks to the reduced overall dimensions and the easy assembly, ECOARGON UNO and ECOARGON DUE are particularly indicated for small and medium mechanical workshops.

The unit must only be used for the purposes for which it was designed. FILCAR s.r.l. declines every responsibility for damages to things or persons caused by an improper or unreasonable use of the product.

2 TECHNICAL FEATURES

The ECOARGON UNO and ECOARGON DUE kits are available in various versions with flexible piping of different diameter and length and electric-extractors of different power:

| ECOARGON | Piping Length [m] | Diameter Piping [mm] | Installed Power [HP/KW] | Power Supply Voltage* [V] | Absorbed Current [A] | Noise ** [dB] |
|-----------------|-------------------|----------------------|-------------------------|---------------------------|----------------------|---------------|
| UNO 75/5 | 5 | 75 | 0.5/0.37 | 230/400 | 1.9/1.1 | 66 |
| DUE 75/5 | 5 (x2) | 75 | 0.5/0.37 | 230/400 | 1.9/1.1 | 66 |

* Three-phase power supply voltage at 50 Hz.

** Noise values obtained through readings carried out in the four cardinal points, at a distance of 1.5 m from the fan. Free fan reading with piped fans according to UNI Standards.

3. GENERAL WORK SAFETY STANDARDS

- Do not leave the packaging components (expanded polystyrene, nails, cardboard, wood, etc.) within the reach of children as they are a potential source of danger.
- This equipment must be intended only for the use for which it was expressly conceived. Every other use is to be intended improper and dangerous. **FILCAR s.r.l.** declines every responsibility for damages deriving from improper and unreasonable uses of the product.
- Install the unit in a protected place, repaired from atmospherical agents with an ambient temperature not exceeding 40°C.
- Arrange for expulsion duct of the exhaust gases towards the outside, provided with flue to prevent rain water infiltration.
- Have only qualified staff carry out the electrical connections; apply the opportune electric protections envisioned by the current Standards upstream of the electric extractor.
- Pre-emptively ascertain that the electric extractor plate data corresponds to the electric mains features.



- If a burner, or other fuel device, is present in the plant's installation premises, ensure there is sufficient air return to balance the air expelled from the fan.
- Do not carry out maintenance when the electric extractor is connected to the electric energy source; during these phases, it is advised to disconnect it from the electric power supply line.
- In case of plant fault and/or malfunctioning, disconnect it from the electric mains and place an "OUT OF ORDER" sign. For any repairs contact our Technical Assistance and request that original spare parts be used. Non-compliance with the above can jeopardise its safety.
- In case the plant is no longer to be used, it is advised to make it inoperative by disconnecting it from the mains and dispose of the components according to the current Standards.



Do not perform maintenance when the electric extractor is running or when connected to the electric energy source. During these phases, we recommend disconnecting the electric power supply to avoid unwanted start-ups.

4. PRELIMINARY CHECKS AND INSTALLATION

Upon delivery, the material is contained in an individual package that must be carefully handled using suitable means.

In case of temporary material storage, do not overlap heavy objects and ensure material is stored in a dry place. Once unpacked the operator must:

- Dispose of the packaging elements in compliance with the relative Standards in force;
- Verify all parts are present and that they have not been damaged during transport. On the contrary, do not use the material and contact our Dealer.

When checking the received material, refer to the list relating to the purchased model.

4.1 "ECOARGON UNO" mod. 75/5 List of Material

The assembly kit is made of the material listed in the table relating to the purchased plant model. The materials for the electrical connections and the expulsion piping are not provided.

| Pos. | ECOARGON UNO mod. 75/5 |
|------|------------------------------------------------------------------|
| 1 | Aluminium reduced sparking electric extractor series "AK" Hp 0.5 |
| 2 | Clamp for piping Ø 75 |
| 3 | Flexible piping series "ECOGAS" Ø 75 mm; L=5 m |
| 4 | Wall bearings for inactive hoses |
| 5 | Rubber nozzle BGT 75/140 |

To identify the listed items, refer to fig. 1.

4.2 “ECOARGON DUE” mod. 75/5 List of Material

The assembly kit is made of the material listed in the table relating to the purchased plant model. The materials for the electrical connections and the expulsion piping are not provided.

| Pos. | ECOARGON DUE mod. 75/5 |
|------|------------------------------------------------------------------|
| 1 | Aluminium reduced sparking electric extractor series "AK" Hp 0.5 |
| 6 | Conveyor |
| 7 | Clamp for piping Ø 75 |
| 8 | Flexible piping series "ECOGAS" Ø 75 mm; L=3 m or L=5 m |
| 9 | Wall bearings for inactive hoses |
| 10 | Rubber nozzle BGT 75/140 |

To identify the listed items, refer to fig. 2.

4.3 “ECOARGON UNO” and “ECOARGON DUE” Installation

For correct installation, refer to the following fig. 1 or fig. 2, depending on the owned plant model and relative "List of Material" table.

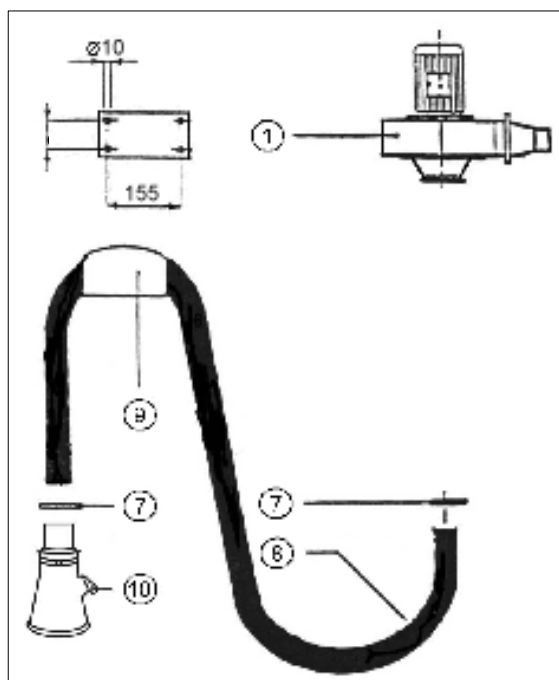


fig. 1 – ECOARGON UNO

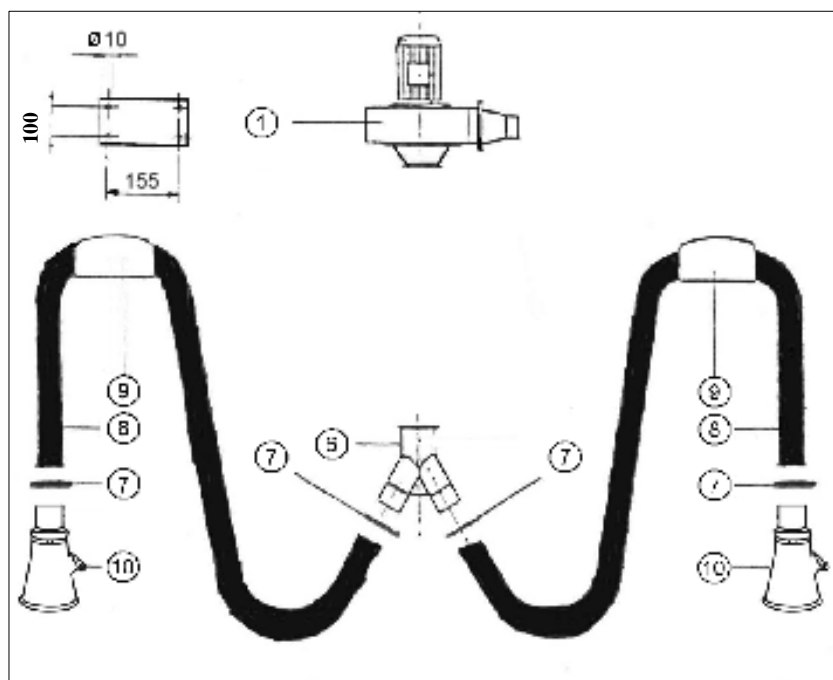


fig. 2 – ECOARGON DUE

During installation, carefully follow the indications below or, if in doubt, contact our After-Sales Technical Assistance or our Dealer:

- Identify the place where the plant is to be installed and verify the wall where it is to be fixed is resistant (solid brick or concrete) or suitable for fixing using expanding dowels;

- Trace the four wall fixing holes for the electric extractor starting from a height of about 2.5 m from the ground (for the pitches see figs. 1 and 2);
- Drill using a masonry break-through drill with adequate diameter for expanding dowel with M8 screw (see manufacturer indications regarding the diameter and depth of the hole);
- Fasten the *Electric extractor* (part. 1) to the wall using the above-said dowels, ensuring the extraction inlet is facing downwards (see figs. 1 and 2);
- Check the wall fastening stability of the electric extractor;
- Complete installation with the *Flexible piping* (part. 8) and the *Rubber nozzle* (part. 10) using the appropriate *Clamps* (part. 7);
- Fasten the *Wall bearings for inactive hoses* (part. 9) to the wall, as shown in figs. 1 and 2.

To complete installation and make the plant operational, the customer must arrange for the expulsion duct of the exhaust gases towards the outside and connection of the electric extractor to the electric mains.

The expulsion duct must have the same diameter as the electric extractor outlet; it must not have sudden diameter changes, constrictions or curves too tight, and must terminate outdoors with appropriate flue preventing rain coming in.

The non-compliance with the above can influence the plant's functioning to the detriment of the extraction ability of said plant and its safety.



**Carefully evaluate the quality of the fastening elements and consistency of the wall to avoid the suspended parts detaching from the wall.
Work in safe conditions in compliance with L.D. 626/94**



Do not use the plant without the Duct for expulsion towards the outside. Do not introduce the exhausted gases back into the premises. Protect the plant against possible rain water infiltrations.

For indications on the electric connection of the electric extractor, refer to successive chapter.

5. ELECTRIC POWER SUPPLY

Connection to the electric power supply is the customer's responsibility whom, in compliance with current Standards, must contact the qualified staff. Carry out electrical connections only after having terminated installation and having connected the electric extractor inlet and outlet to the remainder of the plant. When carrying out the electrical connections comply with that reported in this "Use and Maintenance Manual":

- Verify the existing electrical system is adequately dimensioned and that all protections envisioned by the current Standards exist;
- Arrange the protective devices prescribed by the current Standards (e.g. magnetothermic switch, safety fuses, etc.), upstream of the electric extractor;
- Use an H07-type power supply cable with minimum section of 1.5 mm²;
- Connect the metal parts of the plant and of the electric extractor to the earthing system.



- Connect the power supply cables to the engine's terminal box complying with, among the layouts reported in Chapter 6, that corresponding to the engine's and electrical system's features;
- Start the engine to verify that the rotation direction corresponds to the arrow applied to it (see fig. 9). If required, intervene following the indications reported in Chap. 6.
- Verify that the engine absorptions are below those on the plate (also see Chap. 2 "Technical Features").

FILCAR s.r.l. cannot, in any case, be considered responsible for any damages to things or persons caused by the unsuitability of the existing electrical system, by the non-compliance with that prescribed in this "Use and Maintenance Manual" or by incorrect electrical connections.



Contact qualified staff able to assure compliance with electrical safety Standards. Connect the metal parts to the earthing system. Do not use the electric extractor with outlet open.

6. ELECTRIC LAYOUTS

To correctly connect the engine, verify the type of power supply is compatible with the type of engine used.

6.1 Three-phase Electric Engine 230/400 V

Engine with double power supply voltage. The rotation direction is given by the sequence of the phases, therefore, if wanting to reverse direction, exchange the two power supply cables between them.

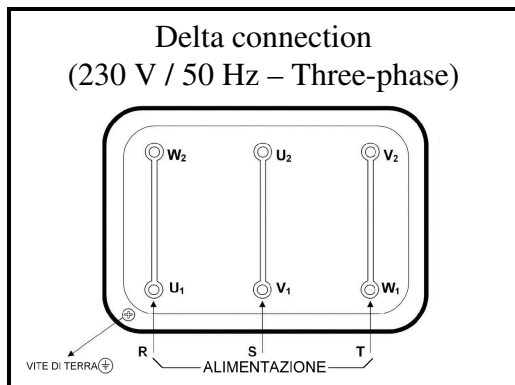


fig. 3

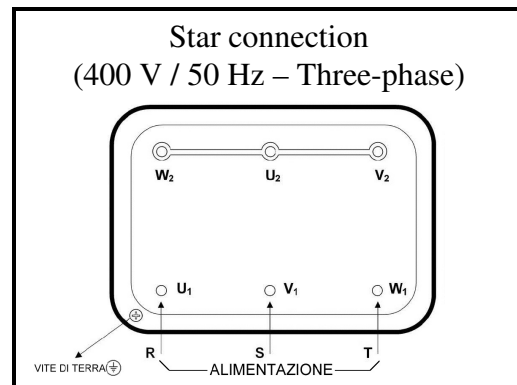


fig. 4

6.2 Single-phase Electric Engine 230 V

Engine running only with 230V single-phase voltage (Phase + Neutral). The rotation direction of the engine can be previously determined, depending on the type of connection.

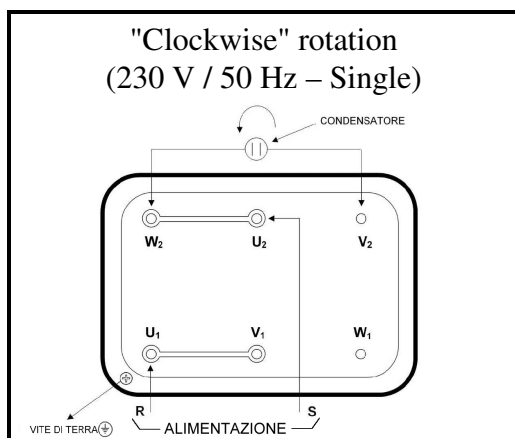


fig. 5

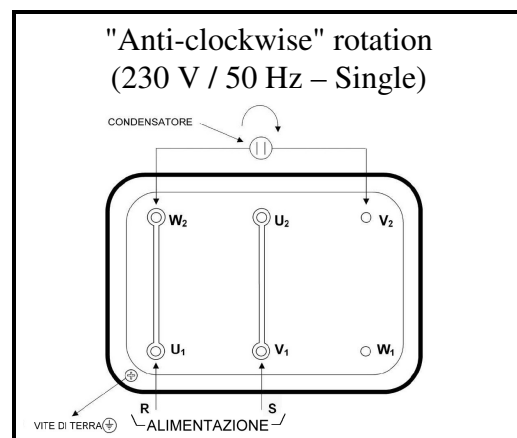


fig. 6



7. USE AND MAINTENANCE MODE

To correctly use the plant, comply with that prescribed in Chap. 3 "General Work Safety Standards" and scrupulously follow the use and maintenance instructions below:

- Do not use the Rubber nozzle on moving vehicles if the electric extractor is not functioning;
- Do not move vehicles without having previously removed the Rubber nozzle from the outlet end module;
- If unused, rest the Flexible pipe on appropriate Wall bearings, keeping the Rubber nozzle lifted from the ground;
- Do not extract paper, cloths or dust as foreign bodies may obstruct piping or damage the electric extractor;
- Always use gloves as the parts in contact with the vehicles' exhausts can reach very high temperatures;
- Switch-off the electric extractor if the plant is not used and at the end of the working day;
- Periodically carry out the maintenance operations reported in this "Use and Maintenance Manual".

To maintain the machine perfectly efficient the following operations must be carried out at least every three months:

- Periodically verify the state of the Flexible piping and of the Rubber nozzle;
- Periodically verify stability of the wall fastening of the unit and of the dowels;
- Check the efficiency of the electric safety devices protecting the electric extractor;
- Remove any dust accumulation from the electric engine body by blowing dry compressed air.

It is advised to annually carry out a full check of the plant and accurate cleaning of the electric extractor. This operation requires the intervention of qualified technical staff. It is advised to directly contact our After-Sales Technical Assistance.



8. TROUBLESHOOTING

Before implementing any maintenance or repairs ensure that the plant is switched off and disconnected from the mains. If in doubt, always contact qualified staff or our After-Sales Technical Assistance.

| Problems | Causes | Solutions |
|--------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------|
| No electric extractor start-up. | Incorrect power supply connection. | Verify correct connection to the electric mains. |
| | Problems on the power supply line. | Consult qualified staff for a more accurate verification of the electrical system. |
| | Problems on the electric engine. | Consult qualified staff for a more accurate verification. Call the After-Sales Technical Assistance. |
| Intervention of the electric safety devices protecting the engine. | Short-circuit in the connections. | Consult qualified staff for a more accurate verification. |
| | Short-circuit in the engine. | Contact the After-Sales Technical Assistance to replace the engine. |
| | Engine overloaded. | Check the integrity of the plant and that there is no disconnected or torn piping. |
| Insufficient extraction capacity. | The fan turns in opposite direction. | Check the rotation direction of the fan. Consult qualified staff. |
| | Obstructions and/or physical impediments. | Verify the flexible pipe is not crushed and that there are no foreign bodies inside the plant. |



**Work in safe conditions in compliance with L.D. 626/94.
Disconnect the electric power supply before carrying out repairs or maintenance.**



**Always contact technically prepared qualified staff.
Request the use of original spare parts.
If in doubt, contact our After-Sales Technical Assistance.**

9. OPTIONAL AND SPARE PARTS

9.1 Spare parts

For the spare parts list, consult the table relating to the purchased plant (par. 4.1 and 4.2 “List of Material”). When ordering the spare part, always refer to the owned model:

E.g.: “*Rubber nozzle BGT 75/140*” for “*ECOARGON UNO 75/5*” plant

10. DESCRIPTION OF THE ADHESIVES

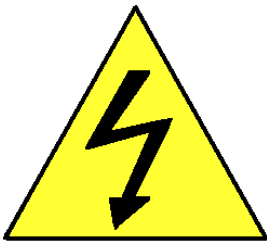


fig. 8

Adhesive indicating there are potentially dangerous powered parts inside the terminal cover. A label underneath specifies the type of voltage present (e.g. "SINGLE 220V").

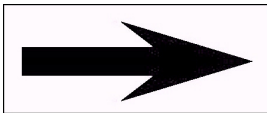


fig. 9

Adhesive indicating the correct rotation direction of the electric extractor; usually positioned on the fan cover casing of the electric engine.



12. DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY

2006/42/CE, 2014/35/UE, 2014/30/UE

FILCAR S.p.A. in the person of our legal representative declares, under our exclusive responsibility, that the product:

“EXTRACTION SYSTEM FOR EXHAUST GAS”

- ECOARG 1-** _____
- ECOARG 2** _____

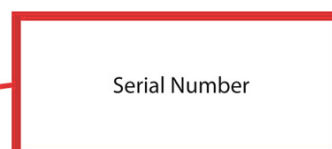
to which this declaration refers is compliant with that prescribed by Directives 2006/42, 2006/95, 2004/108 and subsequent amendments.

We also specify that:

- the year of manufacture is shown on the label (with the CE marking) affixed to the machine;
- a copy of the manufacturing technical file in accordance with that stipulated in the Directive, is kept in our company;
- the serial number is affixed directly on the machine;

FILCAR S.p.a.
Via Giacomo Balla, 18 – 42124
Reggio Emilia - Italy


Paolo Menozzi





NOTES

A series of horizontal dashed lines for taking notes.



CONTACTS

| Countries | Company | Numbers | E-mail and Website |
|-----------------------------|------------------------|-------------------------|---------------------------|
| Italy and rest of the world | FILCAR S.p.A. | Tel. +39 0522 941881 | global@filcar.it |
| | | Fax +39 0522 942291 | www.filcar.eu |
| France, Belgium, Luxembourg | FILCAR S.a.r.l. | Tel. +33 4 74944064 | contact@filcar.fr |
| | | Fax +33 4 74942931 | www.filcar.eu |