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ADVANCE

Easy Moving

ASSEMBLY, USE AND MAINTENANCE MANUAL

MOTOR PROFESSIONAL
380 V 2,2 KW





INSTRUCTION MANUAL

- Type: MOTOR PROFESSIONAL
- Model: 380 V 2,2 KW
- Revision 1.0.5

MOTOR PROFESSIONAL

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1 INTRODUCTION

Dear customer,
the manufacturer would firstly like to thank You for the choice you made in buying an our product, whose technical features will certainly meet Your needs.

Our products have been designed and manufactured in total compliance with the current regulations, by choosing the best materials to obtain durability and ease of use of the product.

We ask you, therefore, to read this manual carefully and completely, following strictly the instructions contained herein.

1.1 Use of this manual

The instruction manual is a document drawn up by the manufacturer and is part of the product: it integrates the specific rules of application and general rules for people, animals and objects safety. In the event that the product is resold, handed over, rented or sold to others, it must always be accompanied by this manual; therefore, it is recommended to use and keep it with care for the entire operative life of the product.

The main objective of this manual is to make known the proper and safe way to use the equipment.

No part of this manual may be reproduced, copied, or shared in any way, without the written permission of the manufacturer.

The manufacturer reserves the right to make improvements or modifications to this manual and to the equipment at any time, without obligation to advise third parties.

2 WARNINGS

- Do not use the product for improper uses.
- This product must not be used by children or persons without the appropriate knowledge.
- Only use original spare parts.
- In order to be able to operate the product easily, it must be installed leaving a space around it completely free of any obstructions.
- This product can be installed on pneumatic conveying systems for granular fuels derived from biomass for other uses ask your seller for advice.
- Before first ignition, check that it is carefully installed.
- Never use the structure of the product as a supporting or fixing element for any other support or equipment.
- It is essential to ventilate the room where the product is installed when loading fuel into the tank.
- Remove the inspection doors only to carry out repairs and maintenance after disconnecting the power supply.
- The manufacturer disclaims all liability or warranty if the purchaser or anyone on his behalf makes any changes or adjustments, however slight, to the product purchased.

2.1 Installer's responsibilities

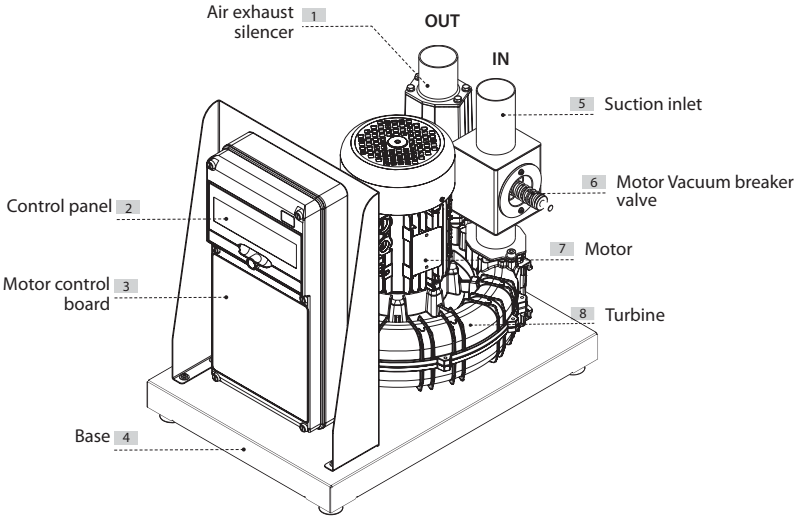
To ensure proper operation of the product, follow these guidelines:

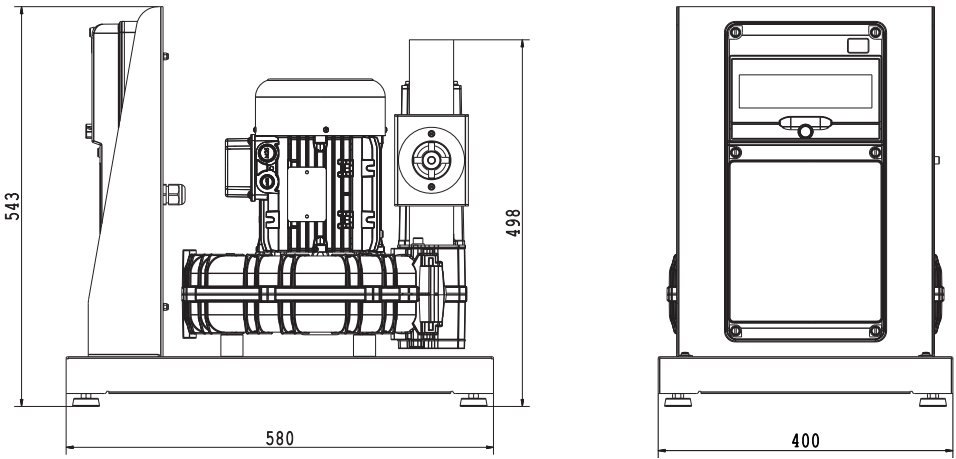
- Only perform the activities described in these instructions
- Perform all activities in accordance with applicable regulations
- Explain to the user the operation and use of the product
- Explain to the user how to maintain the product
- Report to the user the potential dangers related to the use of the product

3 TECHNICAL DATA, EXPLODED VIEW DRAWINGS AND DIMENSIONS

Motor Professional		
Model		Motor Professional
Article		AP3500.63.00
Air inlet	Ø mm	60
Air outlet	Ø mm	60
IP protection degree	IP	55
Power supply	fasi V ac	3/400
Frequency	Hz	50/60
Motor power	W	2200
Absorption	A	4,58
Maximum air flow	(50 Hz) m³/h	304
Weight	kg	40
Noise level (ISO 3744) a 1 m	db (A)	70

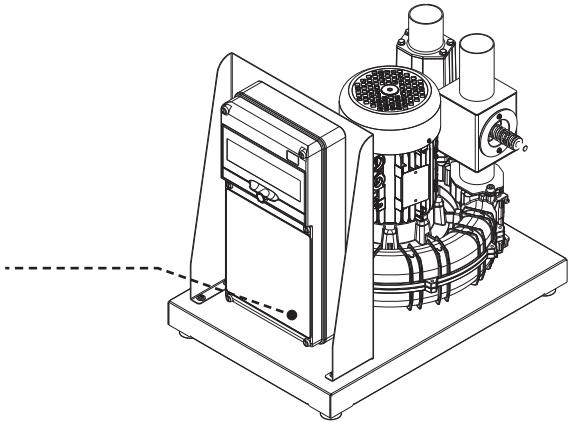
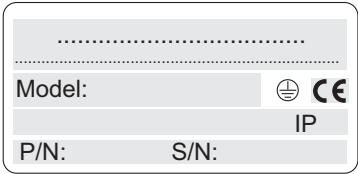
English





3.1 Identification plate

The CE identification plate is located to the piping network attachment side. Do not remove or damage the label.



3.2 Safety symbols



DANGER OF VOLTAGE OR ELECTRICAL CURRENT

Danger of serious personal injuries.

During maintenance operations, always disconnect the power supply and make sure that it cannot be restored.



DANGER OF CUTTING

Danger of serious personal injuries.

During maintenance operations, always disconnect the power supply and make sure that it cannot be restored.



DANGER OF AUTOMATIC STARTING

Danger of serious personal injuries.

During maintenance operations, always disconnect the power supply and make sure that it cannot be restored.



DANGER FOR THE HAND WHEN THE SCREW CONVEYOR IS IN OPERATION

Danger of serious personal injuries.

During maintenance operations, always disconnect the power supply and make sure that it cannot be restored.

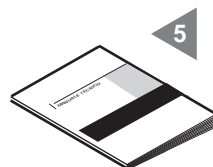
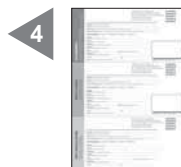
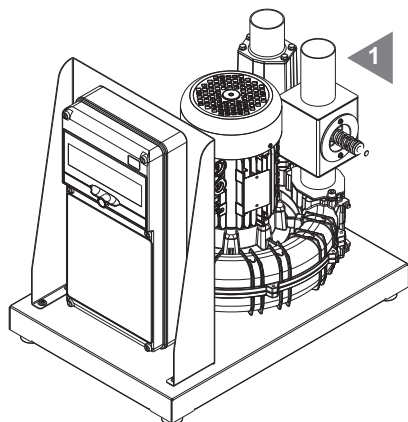
It is recommended to pay full attention to pictograms and warnings of danger and prohibition in the present different parts of the equipment: if not respected, hazardous situations may occur.

4 PACKAGING CONTENT

Check that the product corresponds to what was ordered and that there is no obvious damage caused by transport, otherwise notify the retailer immediately.

After opening the packaging, check that the material contained in the package is conforms to the list below:

- 1) N°1 motor professional
- 2) N°1 anti-vibration rubber sleeve (Ø 60 mm)
- 3) N°4 clamps
- 4) N°1 warranty form
- 5) N°1 handbook



5 PROPER USE OF THE PRODUCT

The motor module was designed for use as a motive force in pneumatic conveying systems for granular biomass fuels such as pellets, olive stones, crushed shells, and maize, and as an ideal solution for systems subjected to particularly harsh conditions such as long conveying distances of up to **50 m** and high capacities of up to **150 kg/hour**.

The use of the motor module is generally associated with the transport of granular biomass fuels, between the storage silo and the boiler tank, with the help of the other components in our catalogue.

The motor module accompanied by the high-efficiency turbine has the task of moving a large quantity of air with a high head in the \varnothing 60 mm pipework of the system, in which a large quantity of fuel granules can consequently be transported.

It is recommended not to use the motor module for transporting products that are very dusty or very fine-grained, or that are of such shapes and sizes that they cause blockages in the system's piping.

The suction air in the motor module must absolutely be pre-filtered if it is likely to contain dust or residues of any kind.

The operation of the motor module can be programmed and managed by the PLC programmable control unit in our catalogue.

6 INSTALLATION AND POSITIONING

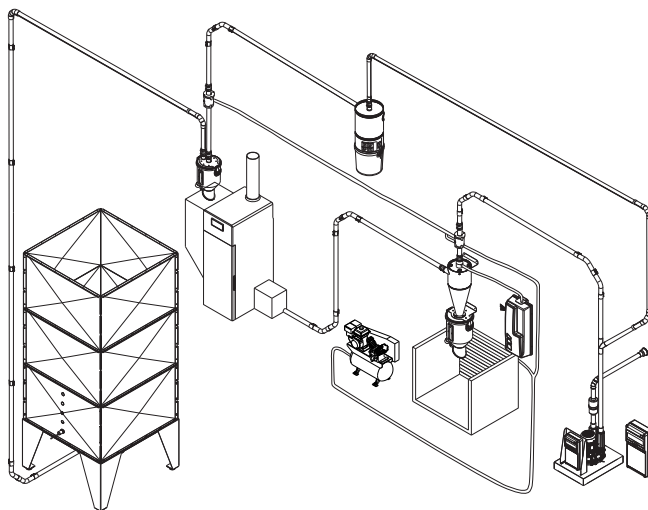
The motor module must be installed in a suitable room, free from humidity and from dust, protected from atmospheric agents and inside which the temperature is between +5 and +40 degrees centigrade. The motor module is equipped with a vacuum breaker valve with factory calibration: during some operating phases of the motor module it is possible that it will vacuum air from this valve, therefore the space around it must always be free and ventilated for a distance at least 50 cm in each direction.

The motor module must be fixed to a sturdy surface and positioned perfectly level; if there is a risk of flooding in the room where it is installed, it must be placed in an elevated position.

The motor module must never be covered with plastic, rags or various types of covers, furthermore there must be no obstacles all around it that prevent normal cooling or hinder normal maintenance.

The motor module must never be connected directly to the fuel transport line, but a filtering station such as an LT 40 separator, Black Separator or other components available in the Advance catalog must always be interposed on the suction attachment (see Figure 1).

figure 1



6.1 Connection to the piping network

Both the 60 mm diameter connections to the pipe network must be done using the supplied anti-vibration sleeves between the system pipes and the motor module, fixing them with metal clamps.

From the attachment named OUT the motor module expels air at high speed, while the attachment marked IN sucks air from the fuel transport line.

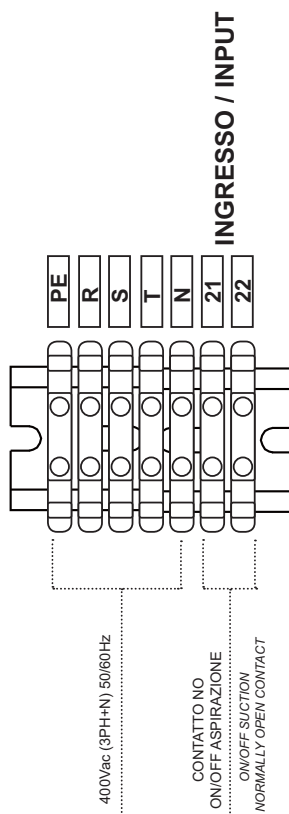
It is advisable to always direct the air expulsion pipe to the outside.

The air coming from the system must be filtered, to avoid damage to the turbine of the motor module (see Figure 1).

6.2 Electrical Connection

Before making the electrical connection, check that the voltage corresponds to that required and that the electrical system to which the product is connected is realized in accordance with current regulations.

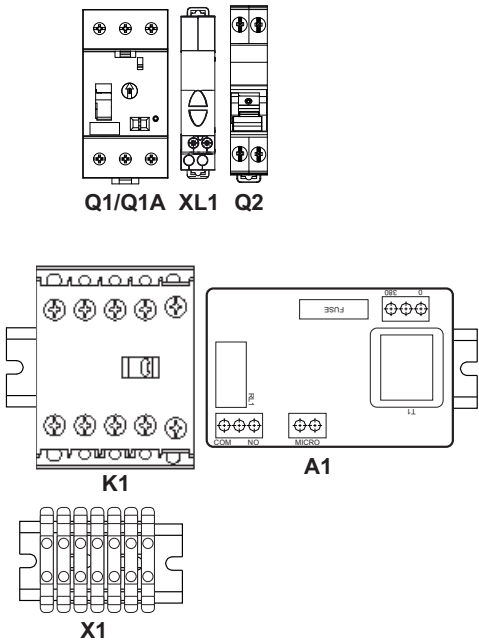
For the power and control electrical connections, follow the diagrams below



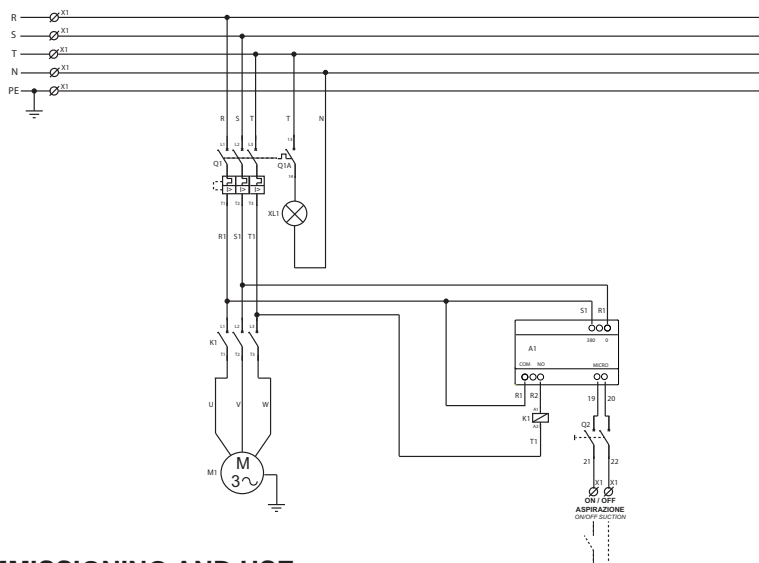
6.3 Motor panel components list

SIGLA MARKING	DESCRIZIONE DESCRIPTION
A1	SCHEDA COMANDO MOTORE ELECTRONIC BOARD
K1	CONTATTORE 400V 12A CONTACTOR
Q1	INTERRUTTORE SALVAMOTORE 4-6.3A MOTOR STARTER PROTECTION/ MAIN SWITCH
Q1A	CONTATTO AUSILIARIO SALVAMOTORE MAIN SWITCH AUXILIARY CONTACT
Q2	SEZIONATORE 2 POLI 6A LINEA MICRO MICRO LINE ON-OFF SWITCH
XL1	SPIA PRESENZA RETE 230Vac 230Vac INDICATOR LIGHT
X1	MORSETTIERA COLLEGAMENTI ESTERNI CLAMP

6.4 Layout



6.5 Control panel wiring diagram



7 COMMISSIONING AND USE

The motor module generates the vacuum in the pneumatic fuel transport system on which it is installed: its operation must be managed through a connection to the PLC present in the ADVANCE catalog.

For other types of operation, contact our technical department in advance.

8 MAINTENANCE AND END-OF-LIFE

Before carrying out any intervention on the product, it is mandatory to disconnect the power supply cable. Complex or long-term maintenance must be carried out outside the fuel storage room or the boiler room.

Any maintenance and repair activity must be carried out by expert personnel authorized by the manufacturer.

In the absence of a specific maintenance plan, it is advisable to carry out the following checks at least monthly:

- check the integrity and the state of wear of the electric cables
- Thoroughly clean the engine cooling slits and the dispersion fins

To ensure optimal and long-lasting operation of the motor module, we recommend the exclusive use of original spare parts.

8.1 End-of-life

The disposal of packaging, accessories and machine must be executed in accordance with applicable laws, ensuring the recycling of any of the core components.



9 WARRANTY

PRODUCT LIMITED WARRANTY CONDITIONS

The Manufacturer guarantees to the original purchaser the absence of defects in material and workmanship of the product for the period stated, from the date of purchase. Except as prohibited by applicable law, this warranty is non transferable and it is limited to the original purchaser. The present warranty gives the buyer specific legal rights and the possibility to claim rights which can vary under local laws.

Read all warnings and instructions before using the product purchased.

The entire liability of the manufacturer and your exclusive remedy for any breach of warranty will be at the discretion of the Manufacturer:

(1) To repair or replace the product, or (2) refund the purchase price, provided that the product has been returned to the point of purchase, or such other place as may be specified by the manufacturer, with a copy of the sales receipt or detailed and dated receipt. The shipping and handling are not free of charge, except in cases where this is prohibited by applicable law.

To repair and replace the product, the manufacturer may, at their own discretion, use new, refurbished or used parts in good working condition. Any replacement product will be warranted for the remaining time of the original warranty period, or for any period of time that complies with the provisions of the current law.

This warranty does not cover problems or damage resulting from (1) accident, abuse, misapplication, repair, alteration or unauthorized disassembly; (2) maintenance operation, use which is not in accordance with the product instructions or connection to an improper voltage supply; or (3) use of consumables and spare parts which are not supplied by the manufacturer or authorized service center.

Valid warranty claims are generally processed through the point of purchase of the product.

Please agree this detail with the retailer where you purchased the product.

The Warranty claims that cannot be processed through the point of purchase, as well as any other product related questions, should be addressed directly to the manufacturer. Addresses and contact information for customer support can be found at the internet side.

Except as stated by relevant laws in force, any implied warranty or condition of merchantability or suitability for a particular purpose relating to this product is limited to the duration of the Limited Warranty period for the specific product purchased.

Some jurisdictions do not allow limitations on the duration of implied warranties or the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state, or from jurisdiction to jurisdiction.

Consumers have legal rights under applicable national legislation governing the sale of consumer products. Such rights are not affected by the warranties in this Limited Warranty.

No dealer, agent, or employee of the manufacturer is authorized to make any modification, extension or addition to this warranty.

10 CERTIFICATION

Declaration of absence of harmful substances

The manufacturer declares that their products and equipment are made with materials compliant with the current regulations regarding protection of health and the environment and does not contain substances classified as SVHC (Substance of Very High Concern) in accordance with Regulation EC 1907/2006 (REACH, or registration, evaluation, authorization and restriction of chemical substances).

Although in the working cycles of raw materials and our products such substances are not used, their presence in the size of p.p.m. (parts per million) cannot be excluded due to micro-pollution of raw materials.

Declaration of conformity

The Manufacturer declares that its products and equipment comply with the following standards:

EN ISO 12 100:2010 (Risk Assessment Calculator)

EN ISO 14 121-1 (Safety of machinery)

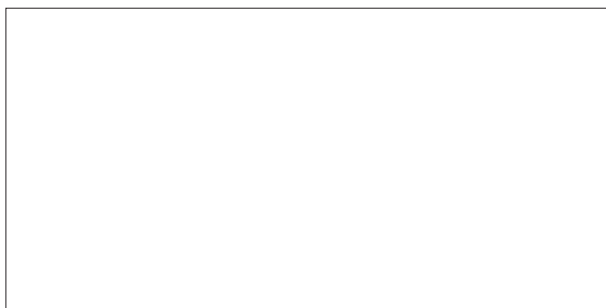
The following Directives:

No 2006-42-EC

No 2014/35/EU (LVD)

No 2014/30/EU (EMC)

MOTOR PROFESSIONAL 380 V 2,2 KW



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ADVANCE
Easy Moving 

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