

OPERATION & MAINTENANCE MANUAL



AIR COOLED AFTERCOOLERS- PNEUMATIC TYPE

Model : AC 400 & AC 900

1.0 GENERAL INFORMATIONS

1.1 Remarks

This manual is to be considered a part of the final air cooled aftercooler alike and should always accompany it for quick reference, to any person like the end-user, the mechanic or any other qualified workman who installs the unit. We wish to emphasize the importance of reading and understanding its contents before starting the machine. It will allow you to make a better use of it and, to avoid possible mistakes when operating.

We also remind you that all instructions contained in the manual should be carefully noted since they will put you in the position of performing some operation which could be source of damages to the aftercooler and harm to persons, if not carried out properly. Furthermore, by strictly following the instructions a rational use of the unit will be achieved and thus economic result as well.

For any problem which may arise in the use of the aftercooler or in case of breakdown, please contact your reseller or any other authorized service centre.

Finally, we recommend that, in case of need, only original spare parts are used. It will guarantee both the performance and long a life to your aftercooler.

This manual contains all the features of the aftercoolers and all the information about safety, installation, operation regulation and maintenance of the unit. By reading the following chapters, with the help of the drawings and of the data sheets, it will be possible to understand the different procedures to be adopted.

No claim will be accepted for damages due to the improper installation of the equipment. In case of enquires the end user is requested to contact our offices or the nearest agent for advice. All details concerning the equipment are valid only for the models manufactured when this manual was printed. The manufacturer reserves the right to make any change without notice.

1.2 Warranty

All products supplied by us have been tested at the factory and are guaranteed for 12 months from date of delivery. The guarantee is only valid provided the customer has complied with the contract and administrative rules and its installation and use has been effected according to the instructions contained in this manual.

The said guarantee provides for the substitution or repair at no charge of all the components which may be supplied defective by the factory.

Our technical department will make the final decision in this regard.

1.2.1 Warranty exclusions

The warranty excludes any liability for direct or indirect damages to persons or things arising from wrong installation and/or incorrect operation of the unit. The liability is limited to defective manufacture or assembly.

Furthermore, the warranty does not cover all those parts subject to wear and tear, nor does it cover shipping, handling, installation or other expenses, including the provision of technicians to rectify faults arising, that were not of our direct responsibility.

1.3 Safety information

Installation and maintenance operations must be done in conformity to the instruction contained in this manual.

Cleaning and maintenance which require contact with the unit, must be carried out by a skilled and trained operator with knowledge of the necessary precautions.

- Do not locate any flammable substances near the aftercooler.
- Do not allow anybody to use the aftercooler without prior instruction.
- Before any maintenance or repair works on the unit, be sure that power and air supply are disconnected.
- Protection grill must be properly installed. There is a high risk of injury if the protection grill is removed.
- Right after any maintenance work on the aftercooler, all the protection must be properly reinstalled with the safety devices sealed.

1.4 Purpose and description of the air cooled aftercooler

The aftercooler is becoming increasingly popular in particular for the following reasons:

- Good refrigeration power;
- Practical;
- Economical.

The best use of the aftercooler unit is at the air outlet point after the compressor, it is basically made up of:

- A COOLING GROUP with a radiant heat exchanger in copper tubes with aluminium finning, especially studied for applications with compressed air. It is supplied with a ventilation group formed by an electro-ventilator necessary to dissipate the heat of the finned pack.
- A CONDENSATE SEPARATOR for the discharge of as much as possible of the condensation formed in the system as a result of cooling.

Any overloading of the equipment, within the maximum limits, will cause a lower performance of the unit (higher humidity) but it will not affect the safety.

1.5 Safety symbols



Electrical shock hazard



Compressed air inlet



Compressed air outlet



Condensate drain point



Fan motor rotation wise

2.0 RECEIPT AND STORAGE

2.1 Receipt

Upon receipt the client must carefully examine the aftercooler thoroughly in order to verify the integrity and the availability of all items listed on the shipping documents.

All claims for missing goods and/or damages have to be notified to us or to the nearest retailer within 8 (eight) days from date of receipt.

It is necessary that the aftercooler is kept in vertical position as shown on the packaging.

2.2 Unpacking

Unpacking operation has to be done according to the instruction listed under chap. 3 (Installation). After the removal of the packaging material, check whether the aftercooler is damage free, and before any action is taken read carefully this manual.

Keep the packaging in case of need and/or the aftercooler has to be returned to the supplier.

3.0 INSTALLATION

3.1 Foundation

Where the installation of the aftercooler is concerned, no special foundation is needed. A solid and flat horizontal surface will do for this purpose.

It is important that enough free space is left around the unit in order to allow enough air circulation and thus the proper cooling. Furthermore, the ambient air should be free from pollution or flammable gases and vapors, this being a serious fire hazard with fire and explosion risks.

The ambient temperatures should not be lower + 5 °C or higher + 45 °C.

More over the unit should be placed in a room away from direct sunlight, rain and with proper ventilation

3.2 Installation

With reference to the technical data, before proceeding with any operation, make sure that the air system pipes are clean and free from any contaminating particle.

- a. After unpacking, arrange the air fittings as follow:
 - Mount the air fittings where indicated by the “air inlet” and “air outlet” stickers;
 - Close the other air points with hermetic screw plugs.
- b. Fix the “legs” of the heat exchanger using the supplied material.
- c. Mount the condensate separator at the air outlet point.
- d. Connect the aftercooler to the air system according to the symbols of the stickers explained on par. 1.5.
- e. Connect the condensate discharge pipe to the drainage system according to local regulation. It is forbidden to discharge the condensate directly into the water system therefore it is recommended to install a water-oil separator for the treatment of the condensate.

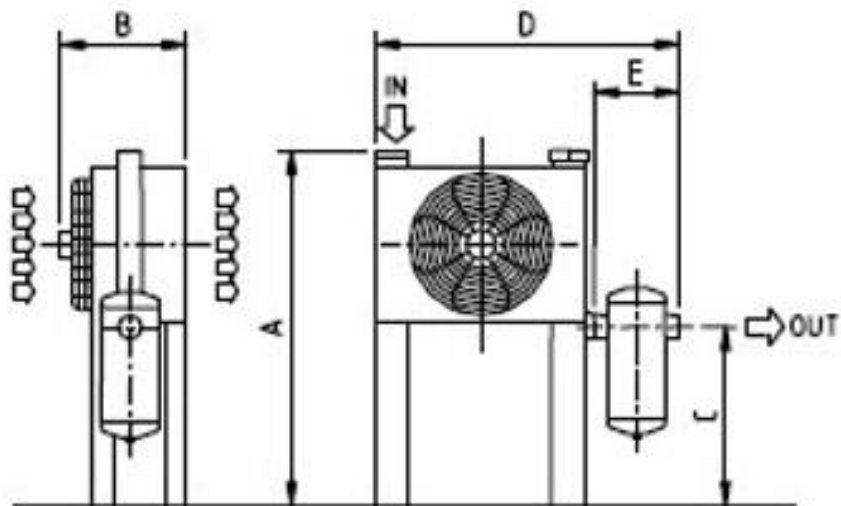
4.0 MAINTENANCE

4.1 Routine maintenance

For best performances of the aftercooler the following maintenance program is recommended:

- **Weekly**, check the regular condensate discharge.
- **Monthly**, depending on the quality of the ambient air and however at the beginning of the hot season, the radiant heat exchanger should be cleaned with compressed air and, if necessary, wash the finned block to eliminate dirt deposits (this must be done after the ventilator motor is disconnected from the power supply).
- **Every 4/6 months**, check that the power consumption of the ventilator matches the standard values on sheet 1.

5.0 TECHNISCHE DATEN – TECHNICAL DATA



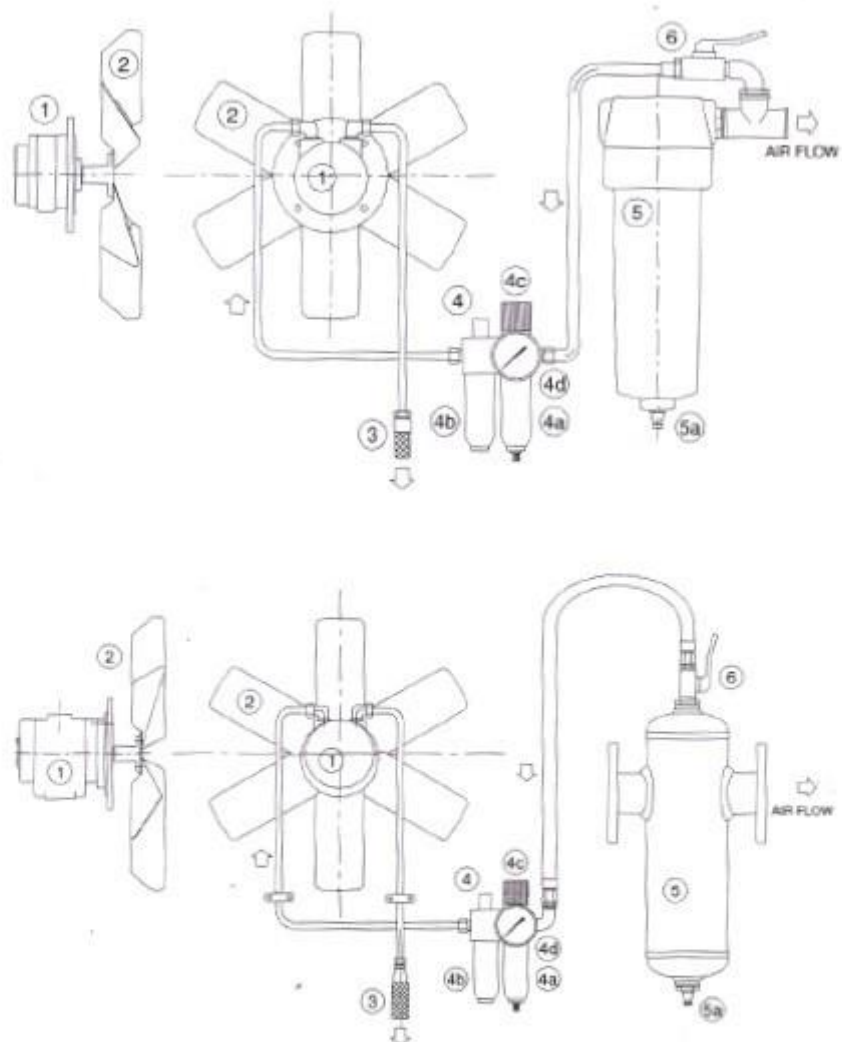
AC 400 & AC 900

Model	Air Flow Rate	No of Inlet / Sizes	No of Outlet / Sizes	Weight & Dimension
AC 400 (0301-019/1-C)	400 cfm	2" threaded x 1	1-1/4" claw coupling x 1 3/4" claw coupling x 1	152 KG 147 X 82 X 145 CM
AC 900 (0301-019/2-C)	900 cfm	2" threaded x 1	1-1/4" claw coupling x 2 3/4" claw coupling x 1	276 KG 208 X 80 X 179 CM

Working Reference Parameters

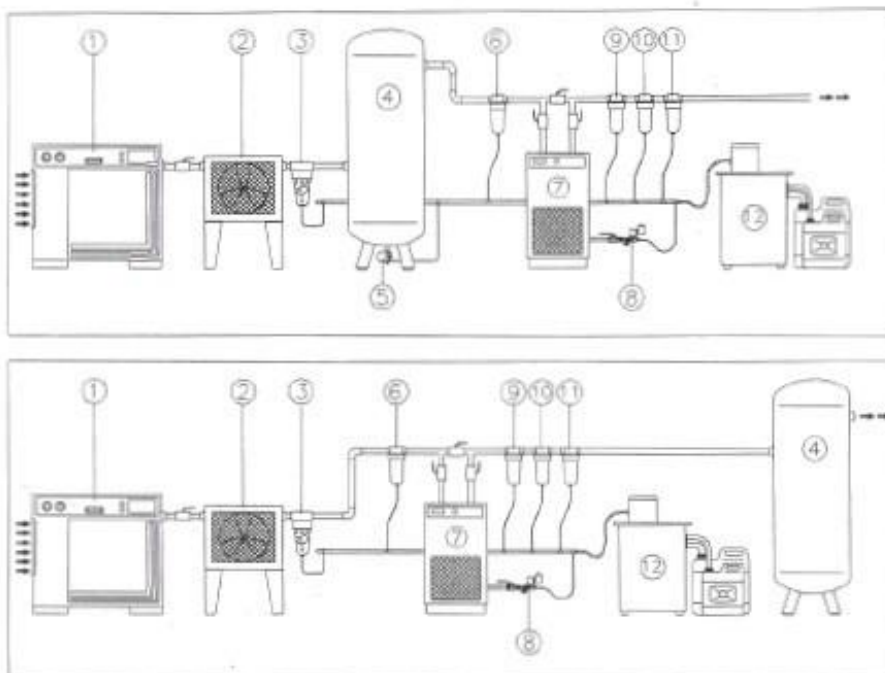
Inlet Air Temperature: 120°C (max)
 Outlet Air Temperature: 34°C (max 66°C)
 Ambient Temperature: 25°C (max 45°C)
 Working Pressure: 7 Bar (max 12)

6.0 SCHEMA PNEUMATICO – PNEUMATIC DIAGRAM



1	Motore pneumatico	Pneumatic motor
2	Ventola	Ventilator fan
3	Silenziatore scarico aria	Air discharge Silencer
4	Gruppo FRL	FRL (Filter, Regulator, Lubricating device) group
4a	Filtro aria gruppo FRL	FRL group air Filter
4b	Lubrificatore gruppo FRL	FRL group lubricating device
4c	Regolatore di pressione gruppo FRL	FRL group Pressure regulator
4d	Manometro gruppo FRL	FRL group Pressure Gauge
5	Separatore di condensa	Condensate separator
5a	Scaricatore condensa manuale	Manual condensate discharger
6	Rubinetto isolamento motore pneumatico	Pneumatic motor disconnecting pressure ball valve

7.0 LAYOUT D'INSTALLAZIONE - INSTALLATION LAYOUT



1	Compressore	Compressor	Compresor
2	<i>Refrigeratore finale</i>	<i>Aftercooler</i>	<i>Refrigerador posterior</i>
3	Separatore di Condensa	Condensate separator	Separador de condensados
4	Serbatoio	Tank	Depósito
5	Scaricatore Automatico	Automatic Drain	Purga Automática
6	Prefiltro Ceramico - DF	Ceramic Prefilter - DF	Prefiltro Cerámico - DF
7	Essiccatore	Dryer	Secador
8	Scaricatore Elettronico	Solenoid Drain Valve	Válvula de Purga Solenoide
9	Filtro Disoleatore 1µ - PF	Filter 1µ - PF	Filtro 1µ - PF
10	Filtro Disoleatore 0,1µ - HF	Filter 0,1µ - HF	Filtro 0,1µ - HF
11	Filtro a Carbone Attivo - CF	Carbon Filter - CF	Filtro de Carbono - CF
12	Separatore Acqua/Olio	Water / Oil Separator	Separador de Agua / Aceite