

# AIR COOLED AFTER COOLER



*Pneumatic*



## Applications:

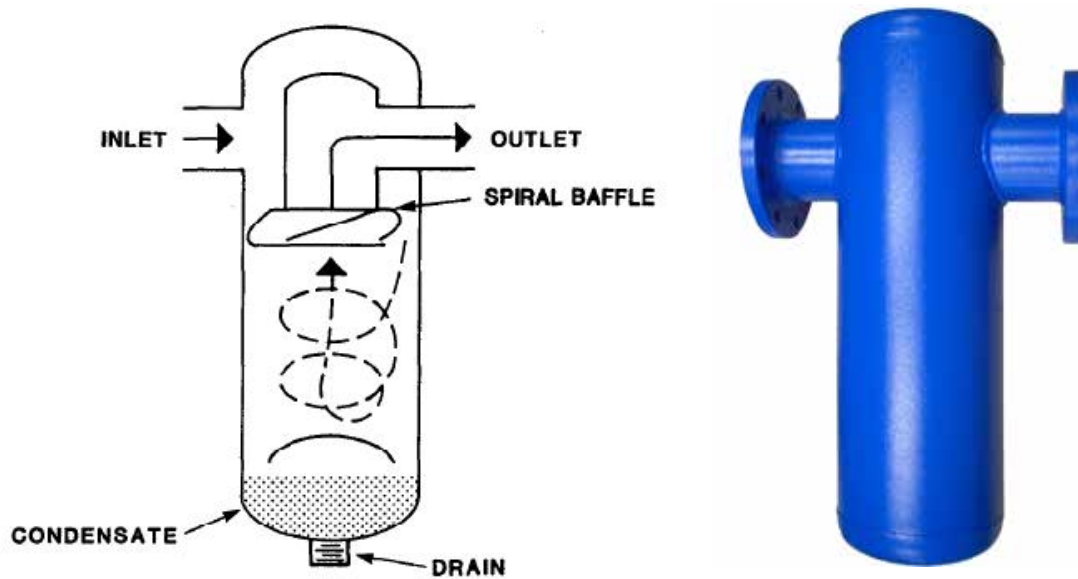
- Blasting and spray painting systems
- Oil and petro-chemical industry
- Construction and Maintenance
- Special industrial equipment
- Breathing air
- Down stream of high efficiency



MODEL	FLOW-RATE			DIMENSIONS (MM)					C.AIR FLOW	CONN.	WEIGHT
↓ ↓ ↓	( l/min )	(Nm <sup>3</sup> /h)	(CFM)	A	B	C	D	E	(Nm <sup>3</sup> /h)	BSP	(Kg)
RA 10	1000	60	35	955	270	555	530	120	800	1"	19
RA 20	2000	120	71	955	270	555	530	120	800	1"	20
RA 30	3000	180	106	1145	270	585	690	120	2980	1.1/2"	29
RA 40	4000	240	141	1145	330	675	690	120	3790	1.1/2"	32
RA 50	5000	300	177	1145	330	675	970	210	3790	2"	49
RA 65	6500	390	230	1145	360	675	970	210	6100	2"	51
RA 80	8000	480	282	1390	380	675	970	210	6100	2"	53
RA 120	12000	720	424	1625	655	675	980	210	8700	2"	97
RA 160	16000	960	565	1625	655	675	1265	265	8700	2.1/2"	120
RA 200	20000	1200	706	2105	490	615	1600	360	11000	DN 80	240
RA 250	25000	1500	883	2105	490	615	1600	360	11000	DN 80	250
RA 300	30000	1800	1059	2060	490	945	1972	420	11000	DN 100	280
RA 400	40000	2400	1413	2060	490	945	2202	420	17400	DN 100	300
RA 500	50000	3000	1766	2000	556	1020	3245	445	21000	DN 125	310
RA 650	65000	3900	2295	2000	570	1020	3245	445	21000	DN 125	390
RA 750	75000	4500	2649	2000	560	1020	3326	524	21000	DN 150	390



## CENTRIFUGAL MOISTURE SEPARATOR



## FITTINGS



MATING FLANGES

## ABRASIVE BLASTING OPERATION





## OUTLETS



## ADDITIONAL FITTINGS



Drain Valve with Timer



Automatic Drain Valve



Safety Guard



Analog Temperature Gauge



Digital Temperature Gauge

**Refrigeratori d'aria raffreddati ad aria**  
**Air cooled aftercoolers**  
**Дохладители сжатого воздуха**  
 (с воздушным охлаждением)

# RA

**Manuale d'uso e manutenzione**  
**Operation & Maintenance Manual**  
**Руководство по эксплуатации и техническому**  
**обслуживанию**

**Modelli – Models – Модели**  
**10 - 750**

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### 1.0 GENERAL INFORMATION

#### 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 resaler or any other authorized service center.

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 operation on the unit, be sure that power and air supply are disconnected.
- Under normal working condition, protection grill must be properly installed.
- Right after any maintenance work on the aftercooler, all the protection must be properly reinstalled with the safety devices sealed.
- Under normal working condition, there is the risk of injury if the protection grill is removed.
- Before removing the protection grill of the condenser fan, make sure that the power supply is switched off.
- In case soldering work has to be done, the power supply and air pressure must be disconnected.
- It is dangerous to hit the inner pipes with any object.

**This unit has been developed and manufactured according the European CEE safety norms as indicated on the declaration of conformity.**

#### 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 right collocation of the aftercooler unit is at the air outlet point of the compressors, it is basically made up of:

- A COOLING GROUP with a radiant heat exchanger in copper tubes with aluminum 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.



### Safety symbols



Electrical shock hazard



Air inlet point



Air outlet point



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 Unpackaging

Unpackaging operation have 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 than + 5 °C or higher than + 40 °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 unpackaging, 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 one of the examples shown on chap. 7.0 by following the symbols of the stickers explained on par. 1.5.
- e. Cable the machine as shown on chap. 6.0 (electrical wiring diagrams). This operation must be performed by qualified personnel.
- f. 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.
- g. Make sure that voltage and frequency of the electric network are steady and in compliance with data on the machine plate; the electrical connection must be performed according to local regulation.

## 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.

