

**ROTAIR** S.p.A.

Operating manual  
of the  
electrocompressor  
with standard  
electronic card

**RVK**

<input type="checkbox"/>	<b>RVK 8</b>
<input type="checkbox"/>	<b>RVK 10</b>
<input type="checkbox"/>	<b>RVK 15</b>
<input type="checkbox"/>	<b>RVK 20</b>



**-- 1) SUBJET INDEX --**

1. Identification data
2. Technical data
3. The purpose of the manual and who it is to be consulted by
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**ATTENTION!**

***The failure to follow or apply the instructions or regulations indicated in the present manual with result in the annulment of any kind of guarantee rights on the compressor and will relieve the manufacturer from any kind of liability as the result of damage to either persons or things, as the result of the incorrect use of the machine or inadequate/non existent maintenance***

**-- 1) IDENTIFICATION DATA --**

Here follows details of the information printed on the machine identification plate situated at the front of the machine.

MODEL: **RVK**

REGISTRATION NO.:

MASS (Kg):

AIR DELIVERY (litres per minute) \* :

WORKING PRESSURE (bar):

YEAR OF CONSTRUCTION:

ACOUSTIC POWER dB(A) \*\* : < 100

(\*)Measured in accordance with ISO 1217 standards ( $\pm 5\%$ ).

(\*\*)Measured in accordance with directive CEE 84/533, technical adaptation 85/406/CEE.

**CAUTION:**

***The use of non-original ROTAIR S.P.A. spares will result in the immediate cancellation of the guarantee.***

*On requesting assistance or ordering of parts always cite the model number and registration number above.*

**-- 2) TECHNICAL DATA --**

Model	Motor rated power	Motor rated power	Air output	Pressure	Type of belts
	HP	Kw	ISO 1217 lit/1'		
<b>RVK 8/8</b>	7,5	5,5	870	8	Poly- V sez.K
<b>RVK 8/10</b>	7,5	5,5	780	10	Poly- V sez.K
<b>RVK 10/8</b>	10	7,5	1190	8	Poly- V sez.K
<b>RVK 10/10</b>	10	7,5	1070	10	Poly- V sez.K
<b>RVK 10/13</b>	10	7,5	850	13	Poly- V sez.K
<b>RVK 15/8</b>	15	11	1780	8	Poly- V sez.K
<b>RVK 15/10</b>	15	11	1450	10	Poly- V sez.K
<b>RVK 15/13</b>	15	11	1250	13	Poly- V sez.K
<b>RVK 20/8</b>	20	15	2380	8	Poly- V sez.K
<b>RVK 20/10</b>	20	15	2140	10	Poly- V sez.K
<b>RVK 20/13</b>	20	15	1700	13	Poly- V sez.K

-- OIL SYSTEM CAPACITY:

4 litres

(\*) Q8 SCARLATTI 46 oil is recommended.

Similar types permitted:

DICREA 46	AGIP
COMPRESSOR OIL 46	API
ENERGOL RC-R 46	BP.
COMPRESSOR 46	ERG.
RARUS 425	MOBIL.
LR CCW 46	ROLOIL.
CORENA D 46	SHELL
DACNIS VS 46	TOTAL.

For all other information, regarding the motor, consult the use and maintenance booklet of the manufacturer itself, enclosed with this documentation.

**COMPLETE MACHINE:**

-- MAX. ENVIRONMENTAL TEMPERATURE:

40 °C



**-- 4) ENVISAGED MACHINE USE --**

The **RVK** compressor is a machine which generated a well-defined quantity of compressed air measures in litres per minute.

There are many field of application for the use of all those tools, accessories and implements which have a "*pneumatic*" function.

Each instrument has a compressed air consumption measured in litres per minute.

The best ratio between compressor and tool is when the compressed air consumption of this last does not exceed 85% of the air generated by the compressor (also bear in mind that the quantity of compressed air requested by the tool, will increase in proportion to the wear of the tool itself).

A correct compressor-tool ratio will ensure that the machine operates efficiently and will guarantee maximum performance.

If the tool is too big it will jeopardise the correct function of the machine, and its performance will be impaired, not having the necessary amount of compressed air.

This machine has been designed to work at an environmental temperature of between **-10** and **+40°C**.

**COUNTER-INDICATIONS**

The compressed air generated by this unit contains minute traces of oil and it is therefore not suited to use in those systems that require totally oil-free air (i.e. food industry, pharmaceutical industry, flour and powder transport, etc...).

**PRECAUTIONS****GENERAL PRECAUTIONS**

1. The machine owner is responsible for ensuring that the compressor is maintained in such conditions as to ensure totally safe operation. Any parts or accessories which fail to guarantee safe function are to be replaced.
2. Use only the oils and lubricants recommended or approved by **ROTAIR S.p.A.** and the engine manufacturer. Ensure that the selected lubricants comply with all current safety provisions, particularly as regards explosion or fire risks, and the hazard of the decomposition or production of harmful gases.
3. The supervisor or the responsible party must ensure that all the instructions concerning the function and maintenance of both machinery and equipment are always carefully followed, and that the machines and all the related accessories and safety instruments, comprising the entire compressed or vacuum air system together with all the related piping, valves, connectors and hoses as well as the expendable elements are in good conditions, that they are not excessively worn and that they are not mishandled.
4. All maintenance, overhauling and repair operations are to be undertaken exclusively by adequately trained staff, and supervised by a person qualified in these types of operations if necessary.

5. Maintenance operations must be undertaken only with the machine at a standstill and with the electrical power supply disconnected by means of the switch installed by the user.
6. In the event of suspected or evident overheating of an internal machine component it is necessary to stop the machine, but do not open any inspection hatch before the necessary cooling time has elapsed, to prevent the risk of the spontaneous combustion of oil vapours on contact with incoming air.
7. Before proceeding to disassemble any pressurized component, the compressor, or the machine needs to be suitably isolated from all pressure sources and should be totally exposed to the atmosphere. Each isolation valve must display a warning sign with the wording "work in progress: do not open".
8. Before proceeding with repair work it is necessary to take all the necessary precautions to prevent the risk of sudden starting up. All the starter instruments must also bear a sign with the following wording "work in progress. Do not start up".
9. Never allow the machine or appliance to operate at beyond the established limits (in terms of pressure, temperature, speed, etc..)
10. The machines and pneumatic appliances are to be kept clean , and free of oil, dust, or other accumulated dirt.
11. To avoid the risk of the building up of excessive working temperatures, the heat transfer surfaces must be regularly inspected and cleaned (including cooling fins, coolers and the water jackets, etc). A suitable programmed cleaning frequency should be established for each machine.
12. All the regulation and safety instruments must be maintained with the greatest care to ensure their correct function and they must not be placed out of use.
13. Beware of damaging the safety valves and other pressure discharging instruments, obstruction by means of varnish, oil residue or accumulated dirt is to be avoided as it may effect the working efficiency of the instrument.
14. The precision of the pressure and temperature indicators should be regularly checked in order to ensure rapid replacement should the tolerance values be irregular.
15. The parts should be replaced solely using original **ROTAIR S.p.A.** spares.
16. Never use any inflammable solvents or carbon tetrachloride to clean the parts. Take the necessary precautions to protect against toxic vapours when cleaning using specific chemical products.
17. Always pay the greatest care to cleanliness in all the maintenance and repair operations. Always protect against dirt by covering the parts and exposed openings with a clean cloth, paper or adhesive tape.
18. During operations involving either heat, flames or sparks in a machine, the surrounding components must be protected with non-inflammable material.
19. Never use a live flame luminous source to inspect the inside of a machine, pressure container etc.
20. Before dismantling a compressor, engine or other machine or before beginning an overhaul operation ,avoid moving mobile parts weighting over 15 kg.
21. Once the repairs are complete ensure that no tools, cloths or components have been left inside or on top of the machine, engine or drive elements.

### **PRECAUTIONS DURING USE AND FUNCTION**

1. The operator must avoid compressed air outlets as the force and the speed of the air may cause injury to those in direct contact with the air jet.





**-- 5) TECHNICAL DESCRIPTION --****-- 5.1) CHASSIS AND CANOPY --**

The chassis and the canopy are made of shaped and electro-welded sheet. Both parts are subject to two painting treatments to guarantee the corrosion and rust proofness. The canopy has been planned to meet all requirements of an ordinary and extraordinary maintenance : it is equipped with big doors on all sides to guarantee an easy accessibility to the main parts of the machine.

**-- 5.2) MOTOR --**

Three-phase, 400 V, 2 poles, class F insulation, IP 55 protection degree. For further technical data and operating and maintenance instructions, please refer to chapter 2 of this manual and the enclosed manual of the motor.

**-- 5.4) COMPRESSION UNIT AND OIL SEPARATOR TANK --**

It is completely manufactured in the ROTAIR S.P.A. factory and consists of a central body (cylinder) inside which are fitted two screw rotors with asymmetric section, a male one with 5 lobes and female one with 6 lobes.

The cylinder is closed at the ends by two head sections which contain the bearings which bear the radial and axial loads created by the air compression.

A series of channels, inside the cylinder and heads, undertake to deliver the oil to the various components. The distribution of the lubricant , serves to lubricate the bearings and to maintain a coating of oil between the rotors and the bearings themselves as well as the internal cylinder walls, thereby promoting compression resistance. Another important function of the oil injected between the rotors is that of absorbing the heat generated by the air compression.

The compressed air supplied by this compressor is free of any pulsations and compression comes about axially.

The engine and the compression unit are linked by means of a belt transmission system (chap. 5.6)

The oil tank is integrated on the same compression unit, on the lower part, as is the oil separating filter, the minimum pressure valve, and safety valve located on the rear part of the compression unit.

A "regulator" unit is mounted on the compression unit, the purpose of which is to regulate the quantity of air taken in according to the amount of air consumed. A double-stage filter mounted on the top of this unit guarantees maximum purity of the suctioned air.

**-- 5.5) BELT TRANSMISSION --**

The motor is connected to the compressor by means of a belt transmission. The motor and compressor are installed on a slide support which guarantees the coaxiality of the same and the perfect alignment of the belts in relation to the pulleys. A simple pulling system ensures perfect belt tensioning.

**-- 5.6) FAN AND HEAT EXCHANGER --**

The required amount of electro-compressor cooling is guaranteed thanks to a fan located near the heat exchanger. The airflow generated, which passes through the combined air-air and air-oil radiator cools the air on exit from the compressor as well as the machine.

**-- 5.7) AIR TANK --**

On request the RVK compressor may be supplied with a horizontal air accumulation tank with a 270 litre capacity and tested to C.E 87/404 standards to a pressure of 11 bar. The tank is fitted with a safety valve and a manual discharge cock.

**-- 5.8) DRYER --**

On request the RVK compressor is supplied with a refrigerating cycle dryer with the following features:

- nominal air entry temperature	35 ° C
- maximum air entry temperature	45 ° C
- nominal environmental pressure	25 ° C
- maximum environmental pressure	45 ° C
- nominal working pressure	7 bar
- max. working pressure	15 bar
- pressurized dew point	3 ° C

For further information on the dryer, consult the relative user and maintenance manual enclosed.

**-- 6) CONTROL INSTRUMENTS AND DEVICES --**

The control panel is located on the front section, and has been positioned in such a way as to ensure easily accessible control function.

It is visually divided into two parts:

At the top are the indicator leds and the control buttons, while the hour-counter, the gauge and the emergency button are positioned under the wording **ROTAIR S.p.A.**

**-- 7. ELECTRONIC CARD DESCRIPTION --**

Fig.2 shows the adhesive under which the electronic card is positioned, this card is necessary for control and command function by means of 3 buttons, the signal function is by means of luminous leds.



**fig. 2**

A) A) INDICATOR LEDS: a total of 7 are present and the table at the side of the same indicates the led ON function. The lighting up of led 1 indicates that the machine is live and led 2 indicates that the running button has been pressed and that the compressor cycle has been engaged.

Led 4 indicates that the emergency button has been pressed while led 6 indicates that the maximum permitted temperature has been exceeded.

While leds 5 and 7 respectively indicate motor overcharge and possible faulty connection of the power phases.

- B) CONTROL BUTTONS : are located to the right of the leds, and are drawn directly onto the adhesive, the function of which is as follows (from top to bottom).
- RUNNING: The machine starts on pressing this button.
  - STOP: to stop the machine. Bear in mind that the stopping function is timed to permit the solenoids to de-pressurize the machine (chap. 3.3 STOP)
  - RESET: resets any eventual leds that may be on indicating anomaly. After eliminating the cause of the fault it is necessary to press this button.

## **8) MACHINE INSTALLATION --**

### **8.1 - CHOICE OF PREMISES -**

During compressor operation the heat generated by the compressor is transmitted to the surrounding air. In the case of compressors installed in premises of limited size, it is necessary to eliminate this heat in order to limit the increase in the environmental temperature. The machine should therefore be installed, leaving a sufficient free space around it, for the necessary ordinary and extraordinary maintenance operations. The premises must therefore be sufficiently ventilated by means of windows and ventilation inlets. Sometimes such ventilation inlets are inadequate and it will therefore be necessary to make use of channels of adequate section so as to take in fresh air from outside and to expel the hot ventilated air from inside the premises.

The premises in which the compressor/s is to be installed must always be positioned in such a way as to ensure that it possible to take in ventilation air from outside, without having to make use of excessively long channel elements. The ventilation inlet should, preferably be located on a wall that faces North, so as to prevent the risk of the intake of too much hot air during the summer months.

The air inlet must be built into a wall of the premises at ground height, while the air outlet will be built into the upper part of the opposite wall.

### **8.2 - DISTRIBUTION NET CONNECTION -**

Compressed air connection must be made using piping of a sectional dimension that is not less than that of the exit piping from the compressor station.

It is always advisable to avoid this piping being of excessive length, so that it is advisable to install the machine as near as possible to the compressed air tank.

Should the use of a very long distribution net be necessary, in order to avoid any harmful pressure drops, it will be necessary to use piping of sufficiently large diameter and to avoid sharp bends and elbows.

When preparing the pipe sizes it is important to ensure that the speed of the air inside the same is maintained below 10 metres per second.

Furthermore in the preparation of the mains network it is necessary to ensure that the piping is made to slope downwards to facilitate condensation discharge.

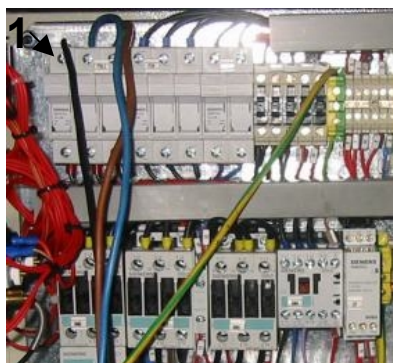
Atmospheric air in fact contains water vapour which, as the result of cooling after compression, turns into water which must be discharged from the system.

## 8.3 - CONNECTION TO MAINS NETWORK -



**Fig. 3**

- Check that the voltage of the power line corresponds to that indicated in the wiring diagram attached to the machine.
- The electric cable must be inserted into the cable-guide formed from the lower panel of the bodywork (part. 2 fig. 3). Remove the flap on the right side of the compression station (part. 1 fig. 3), and thread the cable through the relative cable-guide located at the base of the electric panel and connect up the cables on the fuse-holder FUL1 (part. 1 figure 3.1). The cable section should be calculated in accordance with current electrical regulations.
- Connect the earthing cable to the system (yellow/green terminal)



A line isolator must be installed near the unit and in a clearly visible place, complete with fuses or magnetic switch.

**Fig. 3.1**

**-- 9) MACHINE USE INSTRUCTIONS --**

The use of this electro-compressor does not require specialized personnel; however it is essential that the person responsible for its operation has read the manual in order to put into practice all the advice and instructions provided.

Reference will be made to fig.2 in this chapter.

**9.1 PREPARING FOR START-UP**

1. Check the oil level inside the tank.
2. Check that the earthing system of the electric system is adequate.
3. Check that the oil tank emptying tap is fully closed.
4. Ensure that the maximum final pressure of the unit is compatible and does not exceed the value as required by any machinery, equipment or safety valves mounted beneath the unit itself.
5. In the event of start up following an oil change or after a long period of inactivity, pour in about 0.5 litres of oil into the screw set before starting. To do this, remove the air filter and using a hand pump or other suitable means push the regulator plate downwards whilst pouring the oil in at the same time.

**9.2 STARTING UP**

The operations necessary to ensure the correct starting up of the machine are as follows:

▪ **Power the electro-compressor.**

Led 1 will come on (voltage). Should led 7 also light up it will be necessary to invert the power phases of the electro-compressor, after disconnecting the mains power.

If led 4 lights up it means that the emergency button has been pressed, simply disconnect it (rotating it and pushing it towards you) and press the RESET button to restore machine function.

**IMPORTANT:**

It is important to remember that during the initial starting up stage and in the event of all prolonged periods of inactivity of at least one week, it is strongly advisable to keep the air cocks closed, before pressing the operating button.

▪ **Press the "RUN" button**

The motor starts. The starter located inside the compartment (right side of the electro-compressor), has the main function of starting the motor in "star" mode to then pass into "delta" mode.

Once the star-triangle exchange has occurred, the electro-valve opens the suction for about 2 seconds, the compressor reaches a pressure level of 3.5-4 bar and maintains it for 15 seconds, after which the suction is opened up to the maximum set pressure. From this moment the electro-compressor operates according to the operating cycle.

On the control panel, after pressing the RUN button, led 2 lights up to indicate active machine cycle.

**IMPORTANT:**

In the case previously mentioned of initial start or extended machine stoppage, on starting the electro-compressor wait at least 1 minute before opening the air cocks in the direction of the mains. Remember to open the cocks very gradually!

After pressing the run button the machine may not start and led 3 will come on. It means that the air pressure inside the line exceeds the minimum pressure value set on the electronic card (wait for this pressure to fall and check to ensure that the machine re-starts after reaching the minimum pressure level) or that the oil pressure inside the tank exceeds 1.5 bar and the sensor impedes its start. The electro-compressor will start up only when the exhaust solenoid reduces the pressure to below 1.5 bar. There is a gauge inside the machine which indicates the pressure inside the oil tank.

### 9.3 OPERATING PHASE

As mentioned, 6 seconds after the engagement of the “star-delta” the solenoids are engaged, the suction valve opens and the electro-compressor begins air compression. The pressure indicated on the gauge begins to rise until it reaches the maximum set value. At this point the electronic card disengages the solenoids: one of which acts to close the suction valve and the consequent flow of air directed for compression and the other operating to de-pressurize the oil-pneumatic system. From this moment the compressor can be said to be running “on empty” as the result of the low pressure reached inside the tank which allows the engine to “save” 65% as compared to the power absorbed at full load.

When the air pressure inside the mains falls to below the minimum pressure value set on the electronic card, this last engages the solenoids and the cycle is repeated. Should the pressure inside the mains remain above the minimum value for over 4 minutes, it means that the air demand by the users is low as compared to the actual mains capacity and the electro-compressor will therefore come to a stop and led 3 will come on. Should the pressure fall to below a minimum set value, the electro-compressor will automatically re-start and is ready to supply compressed air to the line. Such function is termed “*timed empty running*”, and generates further energy savings, over and above the “*empty*” running function.

### 9.4 STOPPING

- *Press the stop button*

Led 2 will go out, but the electro-compressor will continue to function for a further 60 seconds. This is the time necessary to de-pressurize the oil-pneumatic system as stopping under pressure is highly detrimental to the machine, as well as to the motor, the screw set and the oil separator filter.



The machine can only be stopped by using the red emergency button (fig. 2); in which case the machine will come to an immediate stop whilst under pressure with all the consequent problems. **Stopping by means of the emergency button is only possible in the case of a fault or danger situation.**

After the machine stop it cannot be immediately re-activated and it will be necessary to wait a few seconds to allow the pressure inside the tank to fall to under 1.5 bar (led 3 will come on).



**-- 10. SAFETY DEVICES AND MAIN MALFUNCTION DISPLAY --**

- *High pressure:* There is also a mechanical safety valve on the tank for discharging any accidental unwanted overpressure. This valve has been set according to very specific requirements and therefore must not be altered or tampered with for any reason.
- *Minimum pressure:* the device positioned on the tank prevents the starting up of the machine until the pressure inside the tank falls to under 1.5 bar.
- *High oil temperature:* there are two types of high oil temperature situations. The first concerns the high temperature inside the tank. The electro compressor will come to an immediate stop should the temperature exceed 105°C.  
The second situation stops the machine when the temperature inside the compression screw exceeds a value of 115°-3°C. Such a situation will immediately bring the machine to a stop and led 6 will come on.
- *Motor overload:* the thermal relay on the electrical system sends a signal to the electronic card which interrupts the compression cycle and causes led 5 to come on. This relay prevents any kind of motor overloads which may damage it..
- *Rotation direction:* Each time that the compressor is connected to the electrical line, it is important to pay careful attention to led 7. If it comes on it means that the two phases have been inverted and the motor can no longer start up. This device prevents the motor from turning in an opposite direction to the rotation direction of the compression unit, thereby preventing any serious and irreparable damage to the entire oleo-pneumatic system.

**WARNING:**

It is important to remember that it is essential to stop the machine by means of the STOP button before all ordinary maintenance operations.

- *Fuses:* 3 primary fuses, gauged on the basis of the total absorbed power of the compressor, which protect the entire electric power plant from the risk of short circuits and overloads, while a series of 4 smaller fuses protect the auxiliary system such as the transformer, electro-valves etc. The electronic card protection is by means of 2 fuses placed on the card itself.

**-- 11) MAINTENANCE PROGRAMME --**

This programme indicates all the necessary periodic operations to be undertaken in the machine and which are essential to ensure its efficient function and long life.

**ORDINARY MAINTENANCE**

Can be undertaken by the personnel who operate on the machine and includes all those periodic programmed maintenance operations such as checks on the oil level, air filters, refuelling, cleaning operations and checks to isolate any eventual leakage of lubricant or fuel inside the machine.

Here follows a list of all the operations relating to the compressor part, in order of frequency, while for those relating to the "motor" please refer to the USER AND MAINTENANCE MANUAL, supplied by the motor construction company with the machine.

**-- 11.1) DAILY CHECKS --****-- 11.1.1) DAILY AND BEFORE STARTING UP THE MACHINE --**

- Check on the compressor oil level (paragraph 12.1).
- Check for any lubricant leakage.

**-- 11.1.2) DAILY AND WITH MOTOR RUNNING --**

- Check on all the indicator lights positioned on the control panel
- Check on the maximum pressure level
- Check on the minimum pressure level

**-- 11.2) WEEKLY --**

- Check on air compressor filter (12.11).



**WARNING:** *Should the compressor operate in a very dusty environment the air filter must be checked, cleaned or replaced more often than indicated above.*



**-- 12) CHECKING AND MAINTENANCE --****-- 12.1) CHECKING COMPRESSOR OIL LEVEL --**

Every morning before starting the machine check the oil level in the compressor tank. The compressor oil level shall never fall below the minimum level notch and never exceed the maximum level either. It shall fall between the two notches of min. and max. level.

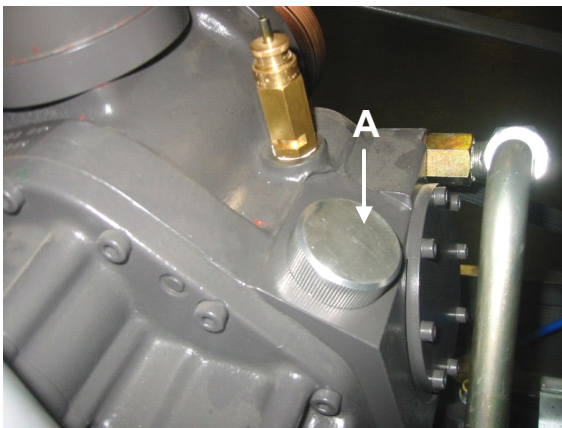
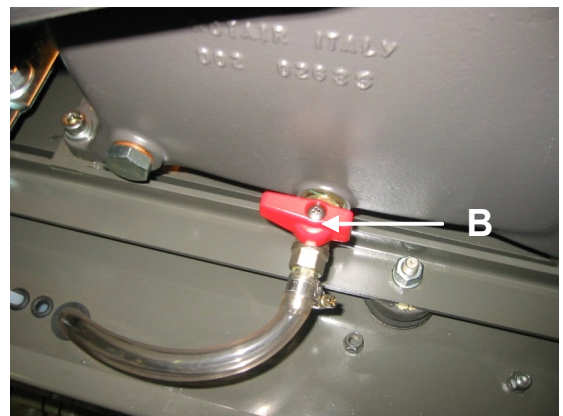
Oil level checks must be undertaken a few hours after having stopped the machine, in order to allow the oil to flow into the tank. In fact if the oil level is checked immediately after switching off the machine, a false reading is given which means that the user will top up with more oil than is necessary.

**-- 12.2) CHANGING COMPRESSOR OIL --**

The oil in the compressor shall be changed every 2000 hours' operation or at least once a year.

To change the oil proceed as follows:

1. Change the oil when the machine is hot
2. switch off the compressor and disconnect the main switch.
3. Unscrew the oil plug on the tank side (part. A fig.3) after checking that the inside of the tank has been fully depressurised
4. Open the drain valve on the tank bottom (part.B fig.4)
5. After draining the oil replace the oil filter cartridge by unscrewing and removing it from its seat. Replace with a new one (12.3)
6. Fill with oil through the filler.

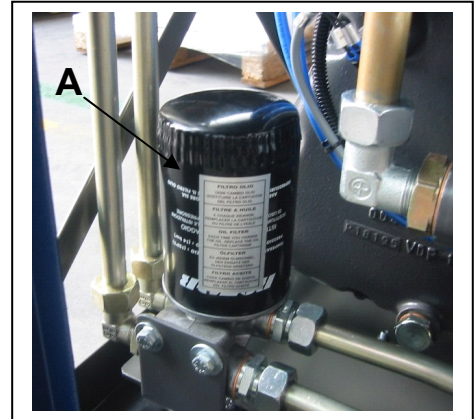
**Fig. 4****Fig. 5**

**IMPORTANT:** Always use the same brand and type of oil as indicated in paragraph 2. In the event that it is necessary to change the oil type (which must however be of an equivalent type as indicated in paragraph 2) be sure to drain away all the lubricant from the entire circuit before adding a different type.

**NEVER MIX DIFFERENT OIL TYPES.**

**-- 12.3) COMPRESSOR OIL FILTER REPLACEMENT (Fig. 5) --**

- Use a chain pipe wrench to unscrew the filter to be replaced (part A).
- Oil the seal of the new filter which must be tightened and secured **by hand only**.
- Start up the machine and ensure that there is no leakage near the seal; if there is; switch off the machine and check the condition of the machine and that it is correctly positioned in its slot.

**FIG. 5**

**WARNING:** *The old filter is impregnated with polluted and harmful mineral oil. It must therefore be sent to the special collection centres.*

**-- 12.4) OIL SEPARATOR ELEMENT --****-- 12.4.1) CHECKING OF OIL SEPARATOR ELEMENT --**

This operation is reserved for specialised and qualified personnel.

The frequency is usually estimated as being of about every 2000 working hours, but it strictly depends on the observance of all the maintenance regulations indicated in this manual.

Insufficient oil in the tank, failure to comply with the lubricant replacement frequency indications or use of the machine with clogged cooling radiator, may all result in **serious damage** to the separator filter.

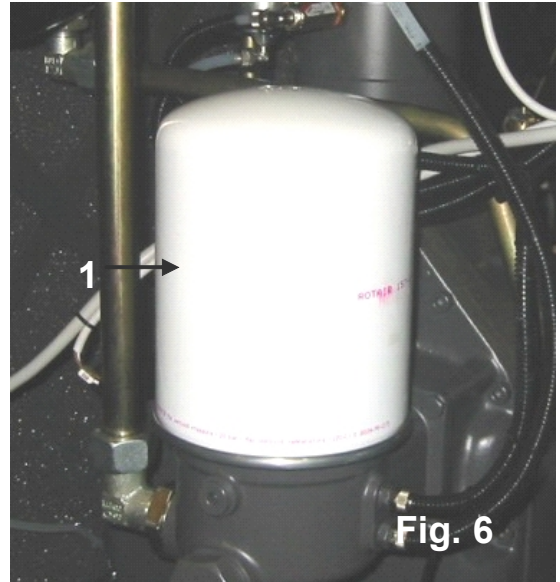
Therefore after having checked the condition of the recovery nozzle described in and having made sure of the correct oil level in tank, should there be any further traces of oil in the compressed air, it is necessary to replace the oil separator filter.

To find out the degree of blockage of the oil separator filter proceed as follows:

- install a gauge at the top of the oil separator and check that the one on the machine is efficient.
- Start up the machine
- Partially open the delivery piping until the control panel gauge indicates the working pressure.
- Read the pressure on the gauge positioned at the top of the oil separator and compare the two values: should a difference of over 1 bar be found, it is a clear indication that the filter is blocked and it must be neither cleaned or washed, but replaced.

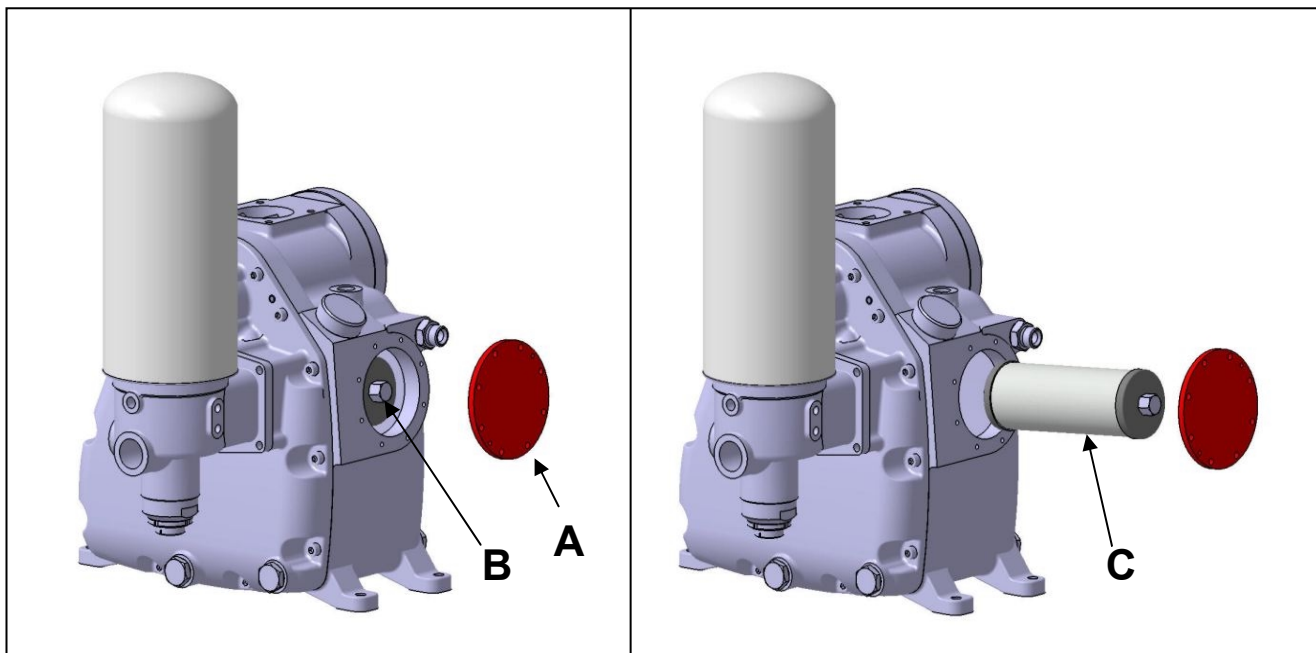
**-- 12.4.2) INSTRUCTIONS FOR THE REPLACEMENT OF THE OIL SEPARATOR ELEMENT --**

1. This operation must be undertaken with the machine at a standstill, and with no pressure inside the oil separator tank.
2. To prevent the risk of soiling the machine as the result of oil leakage which may occur on the replacement of the oil, we recommend that a few cloths be placed under the compression unit.
3. Unscrew the oil separator filter (part. 1 fig.6).
4. Re-assemble the filter making sure the lubricate the filter seal element. The filter must be secured by hand only.



**-- 12.5) INSTRUCTIONS FOR THE REPLACEMENT OF THE PRE-FILTER IN THE INTEGRATED UNIT**

The inside of the integrated compression unit contains a pre-filter which carries out the initial air-oil separation process, thereby reducing the workload on the oil separator filter or permitting improved air-oil separation.



To replace the pre-filter proceed as follows:

After checking that there is no pressure inside the tank, loosen flange A using a 6 mm Allen wrench.

Loosen filter C using the hexagon nut B using a 17 mm wrench and completely extract the same.

Insert the new filter and tighten it on its slot.

Re-tighten flange A.

**IMPORTANT: This operation must only be carried out once the machine has come to a complete stop and the power supply has been disconnected!**

**-- 12.6) COOLING RADIATOR CLEANING --**

The cooling liquids of the compressor and motor are cooled by a radiator which must therefore be kept clean to ensure that the ventilation air can easily pass through its honeycomb flaps.

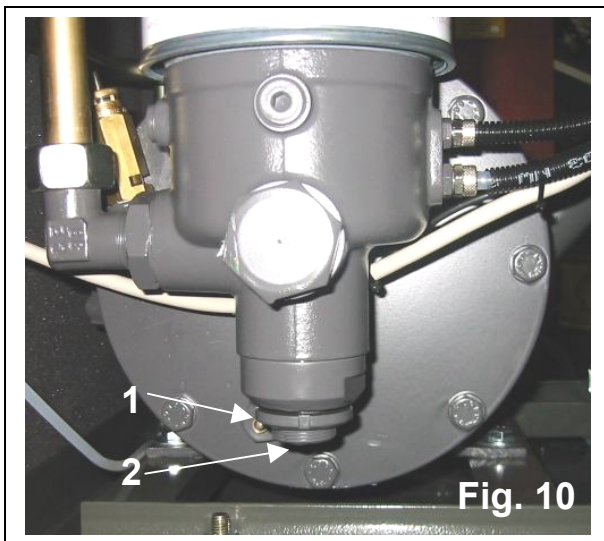
Should the flaps become clogged with dust or other particles, there is a risk of harmful overheating of the mechanical parts of the screw compressor, seriously jeopardising its function and duration. It is therefore advisable to check it regularly and clean it using compressed air or wash it using a pressurized water jet.

**-- 12.7) MINIMUM PRESSURE CHECKING AND SETTING --**

The purpose of this valve is to ensure that during operation the pressure in the oil separator tank does not drop under the minimum value, in order to ensure the necessary oil circulation.

**CHECKING AND SETTING:**

- 1) Start up the machine
- 2) With motor warm, at right temperature, gradually proceed to fully open the air cock the pressure of between 4.5 - 5 bar must appear on the gauge.



Should a different pressure appear than that indicated above, proceed with setting as follows (fig. 10):

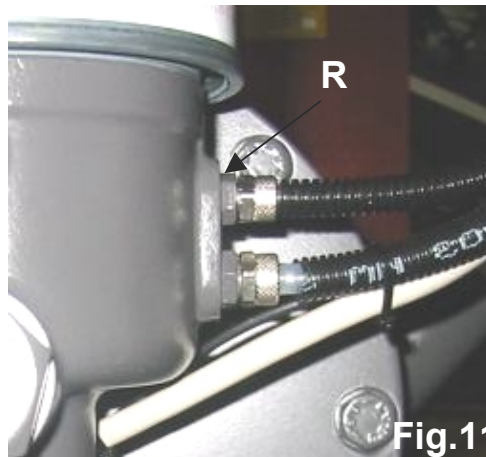
- 3 Release the lock-nut (1) .
- 4 Tighten the regulation screw (2) to increase the pressure to the desired value.
- 5 Loosen the regulation screw (2) to reduce the pressure to the desired value
- 6 Tighten the lock nut (1) and close the cocks.
- 7 Slowly re-open the air cock and then close it again repeating the operations several times in order to permit the valve to settle into place.



## **-- 12.8) OIL RECOVERY NOZZLE CHECKING AND CLEANING --**

This must be undertaken in the event of any leakage of nebulized oil mixed with compressed air, as follows (fig. 11):

- Unscrew the connection (R)
- Inside the connection (R) is a nozzle (U); ensure that its gauged hole is not clogged (blow with a jet of compressed air).
- Re-assemble.



**Fig.11**



**WARNING:** During the regular function of the compressor it is normal to note a certain amount of oil flow out of the transparent piping which starts from the connection (R), towards the compressor head.

## **-- 12.9) REGULATION OF THE MAXIMUM AND DIFFERENTIAL PRESSURE --**

The unit is calibrated to the maximum pressure level requested by the client on order, during the factory testing stage.

**Should it be necessary to make a different regulation, the maximum level set for this type of compressor must never be exceeded, as indicated in chapter 1 of the present user and maintenance manual.** Setting to above the maximum values would cause serious overcharging of the electric motor.

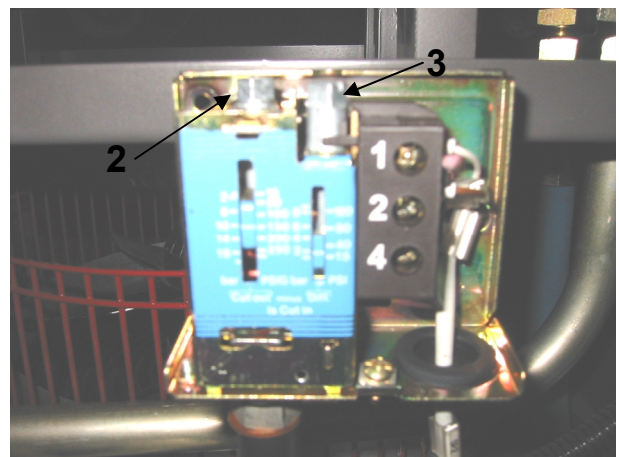
### **PRESSURE REGULATION INSTRUCTIONS:**

Proceed as follows:

- Loosen the screw part. 1 fig. 12
- By rotating the regulation screw (part.2 fig. 13) in a clockwise direction will increase the pressure. Once the maximum desired level is reached the compressor will stop pumping.
- The pressure will be reduced by rotating the screw in an anti-clockwise sense.



**Fig. 12**



**Fig. 13**

### **DIFFERENTIAL PRESSURE REGULATION INSTRUCTIONS:**

This regulation is necessary to establish when the compressor will resume air pumping, on reaching the minimum pressure value.

The regulation of this differential pressure value is obtained by turning the regulation screw (Part 3) in a clockwise sense (to increase it) or in an anti-clockwise sense (to reduce it).

### **IMPORTANT:**

*The difference between the maximum and minimum pressure calibration value, must never be under 1 bar!*

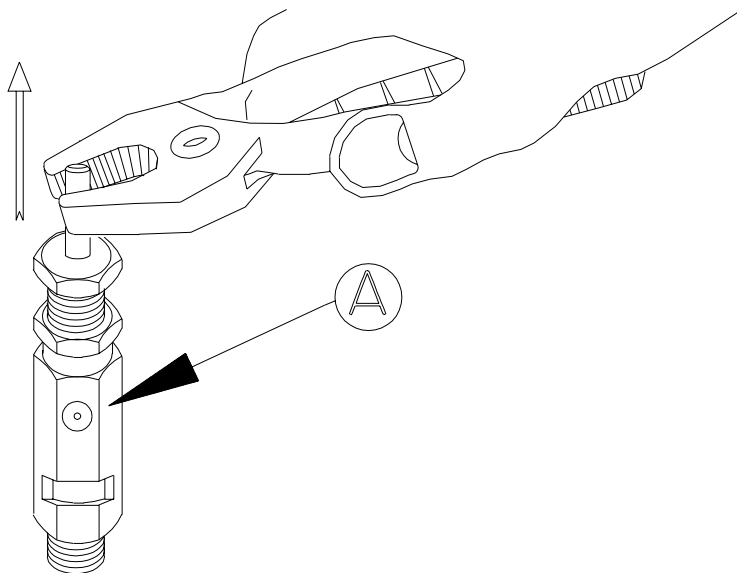
**-- 12.10) SAFETY VALVE CHECK --**

This valve is positioned on the oil separator tank and operates to discharge any accidental overpressure.

This valve is calibrated and checked at the factory, and cannot therefore be altered or tampered with for any reason.

Its efficiency can be checked periodically as follows:

1. Start up the machine
2. With cocks closed, lift the pin upwards using pliers and release as soon as the valve can be seen to discharge air.



**WARNING:** The air which escapes from the valve during this checking operation is mixed with oil particles and therefore to avoid soiling the operator and the inside of the machine it is advisable to bind the valve with a cloth.

If the pin fail to rise after being guided with the pliers, thereby preventing valve breathing, it must be replaced at once.

New replacement safety valves must be of the same type as the original and must be complete with conformity certificate issued by the manufacturer.

As this valve plays a vital role in preventing any dangerous overpressure which could cause the piping, or the oil separator tank to burst, it is important to request the original spare part from ROTAIR S.P.A. citing the machine serial number.

ROTAIR S.P.A. will not accept any responsibility in the event of the use of non-original and non-conforming valves.

## **-- 12.11) AIR FILTER MAINTENANCE --**

The compressor life and efficiency greatly depend on an accurate maintenance of the air filter. A clogged filter reduces the efficiency and causes an early wear of the compressor.

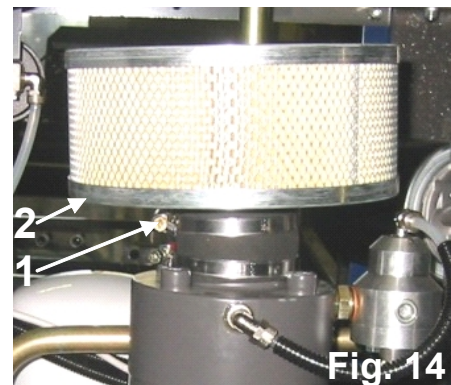
In normal environmental conditions clean the air filters every 100 hours work and change the air filter after 500 hours work. In very dusty environmental conditions clean as often as required.

### FILTER DISASSEMBLY RVK8-10

1. Unscrew nuts
2. Extract the air filter

### FILTER CLEANING RVK8-10

Accurately blow the air filter inside out. The above operations should be carried out in the reverse order to fit them back again.



### FILTER CLEANING RVK 15-20

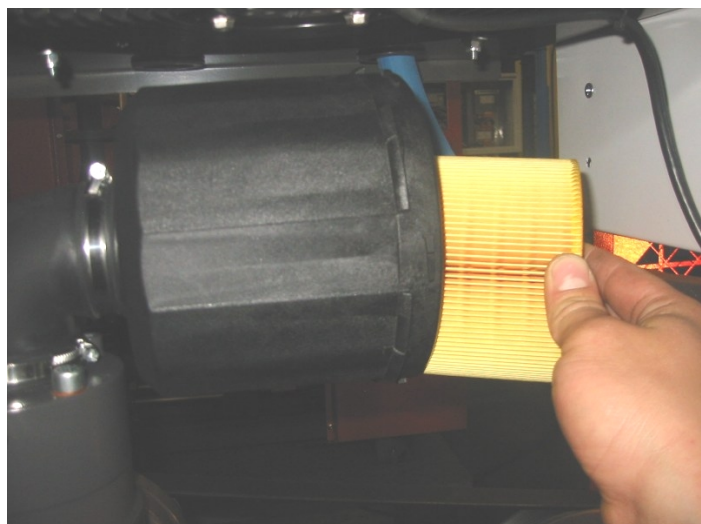
The filtering cartridge may be cleaned a few times using jets of compressed air, but never washed.

They must however be replaced every 500 working hours.

To replace the air filter, take the cap (picture 15) away by rotating it and then take the filter (drawing 16) away. Put the new filter and close the cap again.



**FIG. 15**



**FIG. 16**

**-- 12.12) SUCTION FILTER AND ITS MAINTENANCE --**

RVK compressors have been designed and made to operate in an environment at a max. temperature of 40°C;

should the machine be installed in a small ill-ventilated room because you have no other choice, it will be necessary to make a ventilation duct for air suction and a second duct for letting hot air out. Both ducts shall be connected with the outside and set in such a way as to prevent suction air from mixing with exhaust air. They shall have an adequate size with open-radius bends. An incorrect sizing would reduce ventilation and cause compressor overheating.

The room shall be well aired, clean and as close as possible to the distribution mains network. Should the compressor operate in a very dusty environment, clean air shall flow freely: this can be achieved by replacing the filter often enough (on the vent).

**A dirty clogged filter reduces and slows down the quantity of air being sucked in necessary for ventilation with a consequent harmful overheating of the unit.**

**WARNING:** *type, density and thickness of the filter have been designed and selected not to brake the sucked in air too much. Therefore the spares shall always be original ROTAIR S.P.A. spares. Should other materials be used the guarantee on the machine will become null and void.*

The machine shall be installed by leaving free space around it for ordinary and extraordinary maintenance operations.

**-- 12.13) TRANSMISSION BELT ---****-- 12.13.1) CHECK OF TRANSMISSION BELT TENSIONING ---**

For normal, efficient compressor functioning the transmission belts must always be perfectly tensioned..

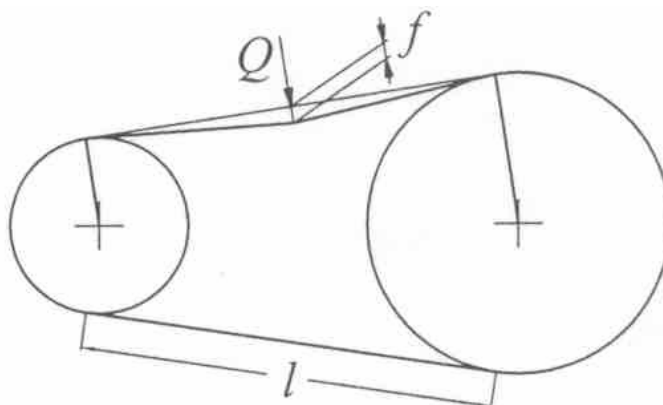
Tensions inferior or superior to those ones we recommend, could cause working anomalies like the sliding or the premature wear and tear of the belt. The mounting of the belt has to be made without using any instrument ( for instance levers ) that could incise the belt or the pulley.

These instructions (Fig. 15) must be followed to determine the exact tensioning of the transmission belts.

To determine the right tension, measure the arrow "f" caused by the application of a force "Q" in the middle of the free part of the belt. The force has to be perpendicular to the belt.

Arrow  $f$  must be 1,5% of the free section " $l$ " applying a Q force equivalent to  $40 \div 47$  N for RVK 8-10-15 and of  $50 \div 63$  N for RVK 20.

If the arrow value " $f$ " exceeds the indicated value it means that the belts are slack, while if the value is lower than this it means that the belts are too taut.

**Fig. 15****Warning:**

Belts that are too loose could slip and cause loss of compressor power.

Belts that are too tight deteriorate and consequently break.

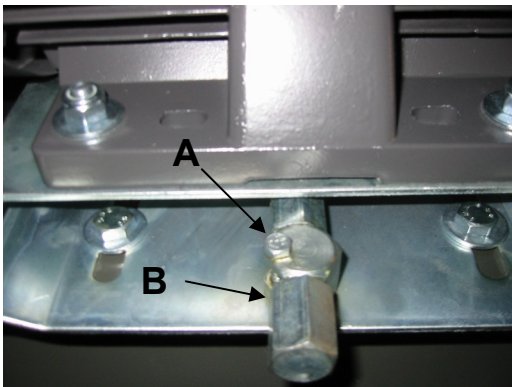
**Warning:****Check belt tension during the first 50 working hours**

Please note that the belts, above all during the first 50 working hours, undergo a slight setting-in and consequently mild stretching.

In this situation the belts may be subject to slipping and, as a result, overheating which could cause breakages.

This is why we strongly recommend the user, after no more than 50 working hours, to check and re-tension the belts. Once this operation has been carried out the belt length is stabilised and subsequent checks must be done following the instructions in the “Maintenance Programme” chapter.

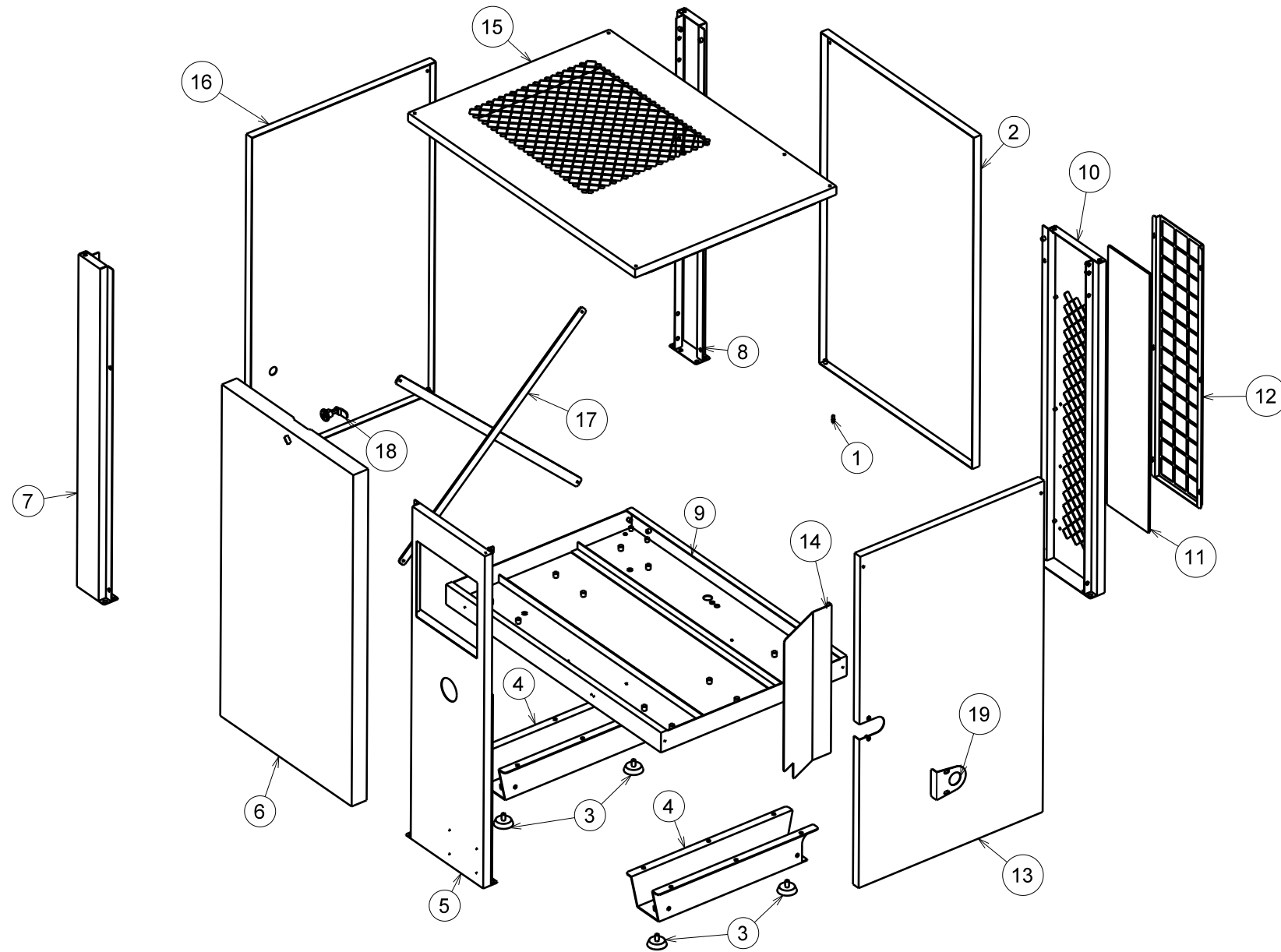
For belt tightening see the instructions in the chapter “Tensioning and Replacement of Transmission Belts”

**TENSIONING AND REPLACEMENT OF TRANSMISSION BELTS****Fig .16**

check”.

As regards the tension and the replacement of the transmission belts it is necessary to proceed as follows:

1. Loosen the screw (part. A fig 16).
2. Rotate the regulation screw (part. B fig.16) for tensioning.
3. If the belts have been replaced it is necessary to tension them to the correct value, proceeding as described at point 1 of this chapter and that described in the previous chapter under “Transmission belt tensioning check”.
4. On adjusting the belts to the required tension, firmly secure screw A.

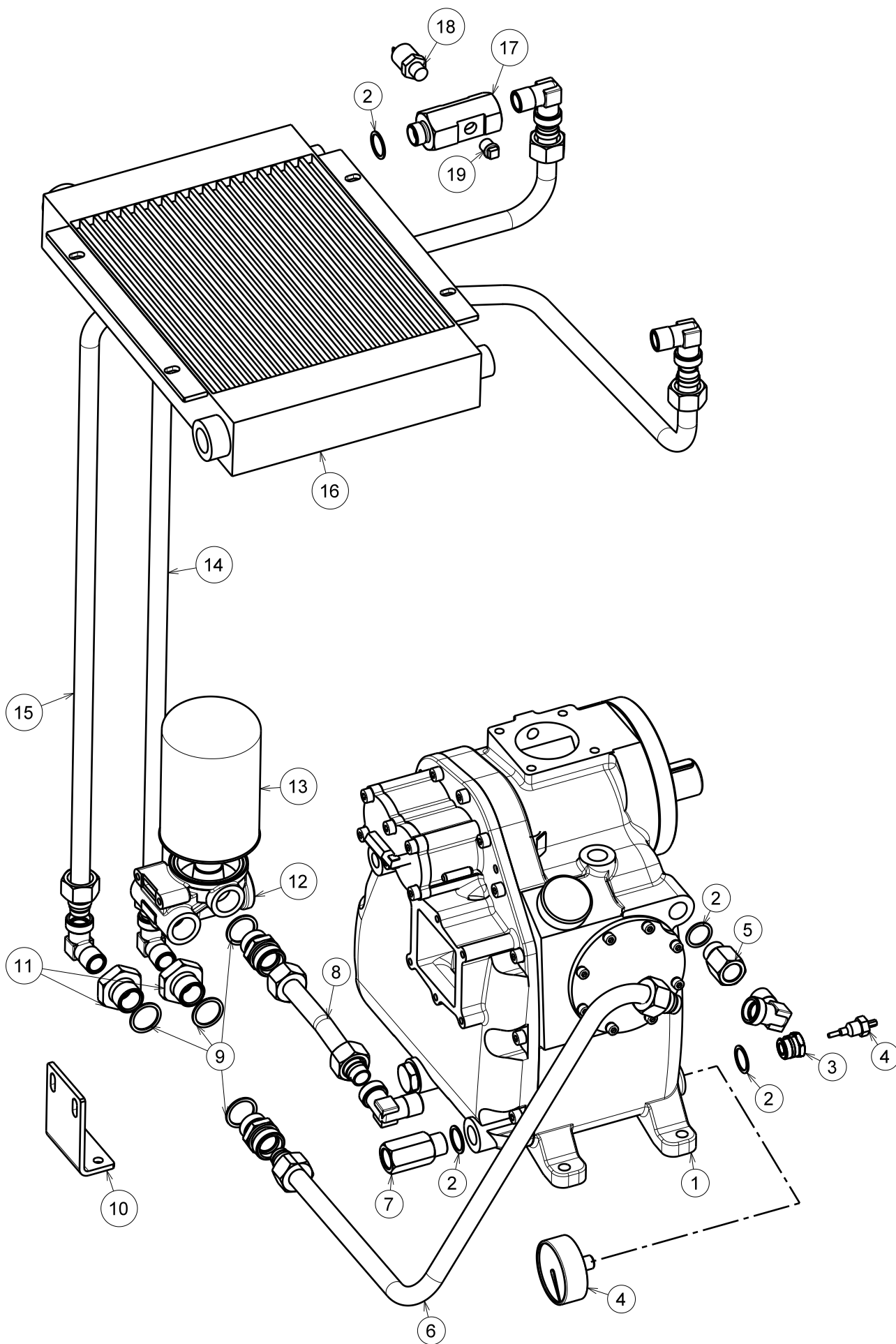




## DETAILS LIST OF RVK 8-20 Restyling (C.E.E.)

### TAB.01 *REV.01 of the 10/07*

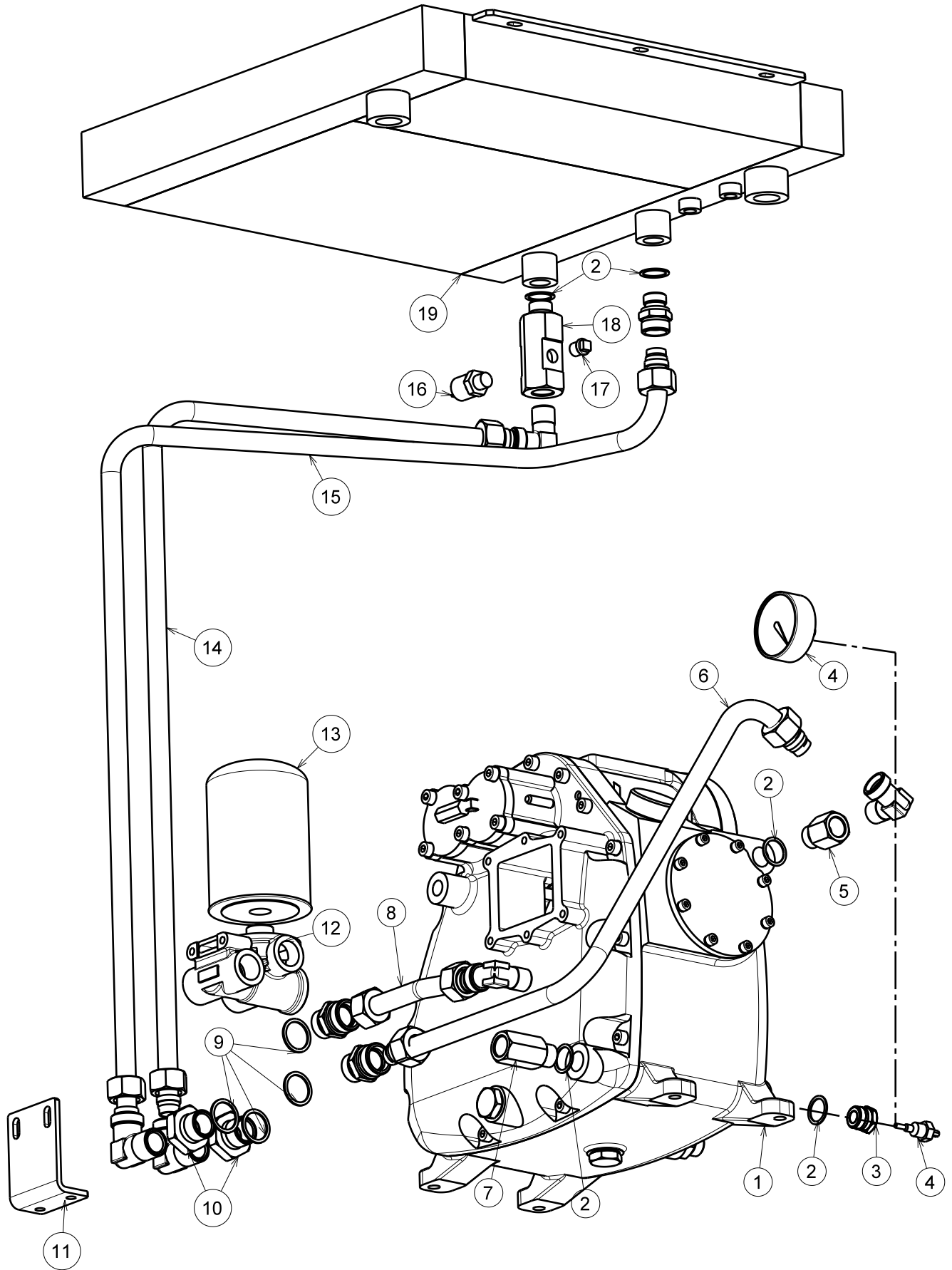
POSITION	CODE	DESCRIPTION	QUANTITY
1	018-121-S	M6 PIN FOR CENTERING PANEL	8
2	124-2033-S	REAR PANEL	1
3	068-100-S	FEET D.50	4
4	068-120-S	FOOT BEARING CHASSIS	2
5	124-20820-S	FRONT RIGHT UPRIGHT PANEL TELMAT	1
	124-2084-S	FRONT RIGHT UPRIGHT PANEL AIRMASTER	1
6	124-20905-S	FRONT PANEL	1
7	124-2080-S	FRONT LEFT UPRIGHT PANEL	1
8	124-2081-S	REAR LEFT UPRIGHT PANEL	1
9	038-2810-S	CHASSIS	1
10	124-20831-S	REAR RIGHT UPRIGHT PANEL	1
11	162-9875-S	INTAKE PRE-FILTER	1
12	124-20381-S	INTAKE CLOTH SUPPORT PANEL	1
13	124-2091-S	RIGHT SIDE PANEL	1
14	118-118-S	SOUND-PROOFED INNER PANEL	1
15	124-20365-S	UPPER PANEL WITH GRATING	1
16	124-2034-S	LEFT SIDE PANEL	1
17	120-157-S	TIE ROD BODYWORK BLADE	2
18	128-007-S	ALLEN SCREW LOCK	1
19	110-0310-S	RIGHT SIDE PANEL CLOSURE FLAP (SEED)	1
	110-0311-S	RIGHT SIDE PANEL CLOSURE FLAP	1



## DETAILS LIST OF RVK 8-10 Restyling (C.E.E.)

### TAB.02 REV.01 of the 10/07

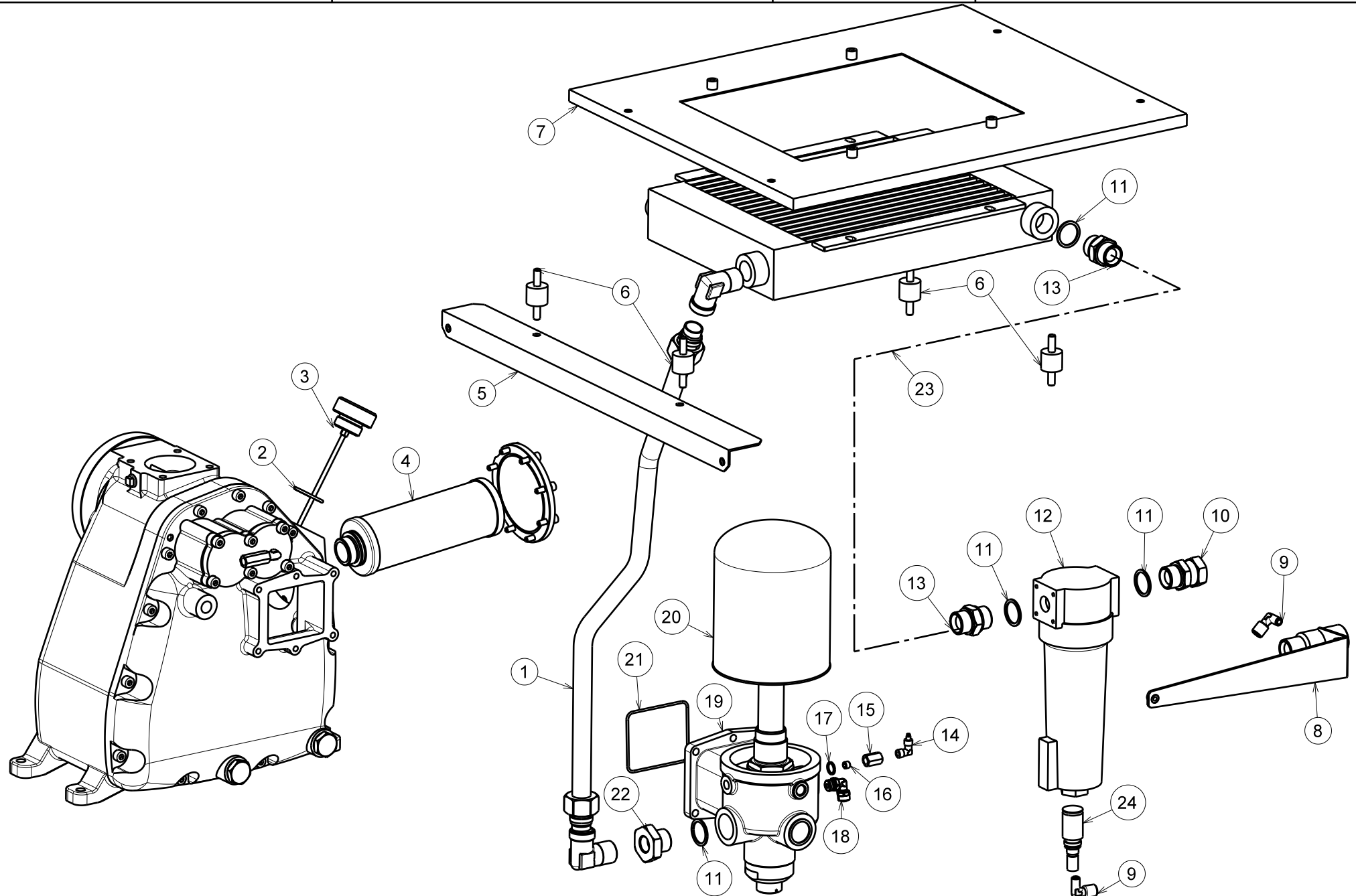
POSITION	CODE	DESCRIPTION	QUANTITY
1	024-0867-S	SCREW GROUP	1
2	015-012-S	COPPER WASHER D 1/2"	5
3	190-023-S	REDUCTION ELEMENT FROM 1/2" M TO 16x1,5 F	1
4	103-050-S	TEMPERATURE TRANSDUCER (AIRMASTER)	1
	167-030-S	CAPILLARY THERMOMETER (TELMAT)	1
5	189-106-S	EXTENSION 1/2 " M A 1/2" F L=40	1
6	064-01810-S	IRON PIPE FROM BY-PASS TO SCREW INJECTION	1
7	189-115-S	EXTENSION 1/2 " M A 1/2" F L=60	1
8	064-01800-S	IRON PIPE FROM BY-PASS TO SCREW GROUP	1
9	015-015-S	COPPER WASHER D 3/4"	4
10	010-2005-S	BY-PASS VALVE SUPPORT	1
11	190-041-S	REDUCTION ELEMENT FROM 3/4" M TO 1/2" F	2
12	024-011-S	BY-PASS VALVE	1
13	099-007-S	COMPRESSOR OIL FILTER STANDARD	1
	099-0012-S	COMPRESSOR OIL FILTER STIFFENED	1
14	064-01710-S	IRON PIPE FROM RADIATOR TO BY-PASS(gate2)	1
15	064-1720-S	IRON PIPE FROM RADIATOR TO BY-PASS(gate3)	1
16	011-0882-S	AIR-OIL RADIATOR	1
17	189-110-S	EXTENSION 1/2 " M A 1/2" F THERMO-FAN SUPP.	1
18	154-037-S	THERMO-FAN SWITCH	1
19	106-025-S	SQUARE HEAD CAP 1/4"	1



## DETAILS LIST OF RVK 15-20 Restyling (C.E.E.)

TAB.02/01  
REV.01 of the 10/07

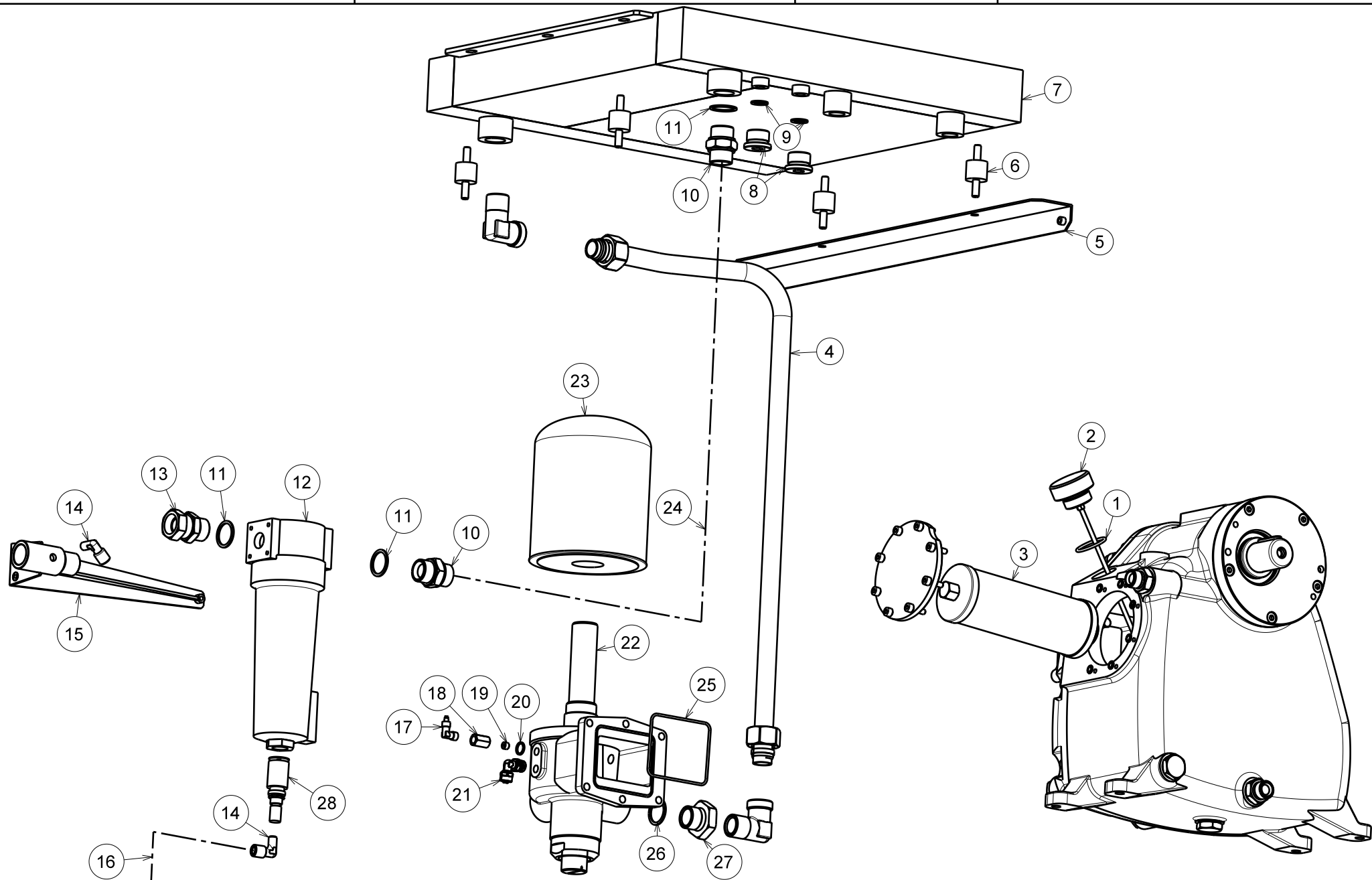
POSITION	CODE	DESCRIPTION	QUANTITY
1	024-0867-S	SCREW GROUP	1
2	015-012-S	COPPER WASHER D 1/2"	5
3	190-023-S	REDUCTION ELEMENT FROM 1/2" M TO 16x1,5 F	1
4	103-050-S	TEMPERATURE TRANSDUCER (AIRMASTER)	1
	167-030-S	CAPILLARY THERMOMETER (TELMAT)	1
5	189-106-S	EXTENSION 1/2 " M A 1/2" F L=40	1
6	064-01810-S	IRON PIPE FROM BY-PASS TO SCREW INJECTION	1
7	189-115-S	EXTENSION 1/2 " M A 1/2" F L=60	1
8	064-01800-S	IRON PIPE FROM BY-PASS TO SCREW GROUP	1
9	015-015-S	COPPER WASHER D 3/4"	4
10	190-041-S	REDUCTION ELEMENT FROM 3/4" M.TO 1/2" F	2
11	010-2005-S	BY-PASS VALVE SUPPORT	1
12	024-011-S	BY-PASS VALVE	1
13	099-007-S	COMPRESSOR OIL FILTER STANDARD	1
	099-0012-S	COMPRESSOR OIL FILTER STIFFENED	1
14	064-01820-S	IRON PIPE FROM RADIATOR TO BY-PASS(gate2)	1
15	064-01830-S	IRON PIPE FROM RADIATOR TO BY-PASS(gate3)	1
16	154-037-S	THERMO-FAN SWITCH	1
17	106-025-S	SQUARE HEAD CAP 1/4"	1
18	189-110-S	EXTENSION 1/2 " M A 1/2" F THERMO-FAN SUPP.	1
19	011-0852-S	AIR-OIL RADIATOR	1



## DETAILS LIST OF RVK 8-10 Restyling (C.E.E.)

### TAB.03 *REV.01 of the 10/07*

POSITION	CODE	DESCRIPTION	QUANTITY
1	064-01700-S	IRON PIPE FROM RADIATOR TO OIL SEPARATOR	1
2	023-028-S	OR CA 38-4125	1
3	106-060-S	OIL LEVEL ROD	1
4	157-172-S	OIL SEPARATOR FILTER (SCREW GROUP)	1
5	120-1556-S	BLADE RADIATOR SUPPORT	1
6	061-026-S	SILENT BLOCK RADIATOR	4
7	049-0812-S	RADIATOR SUPPORT	1
8	010-1970-S	BLADE CONDENSATION SEPARATOR SUPPORT	1
9	148-572-S	RAPID FITTING 90° 1/8" for pipe D 8	2
10	148-005-S	STRAIGHT FITTING M+F 3/4" rotating	1
11	015-015-S	COPPER WASHER D 3/4"	4
12	217-190-S	CONDENSATION SEPARATOR	1
13	187-060-S	DOUBLE SCREW 3/4"	2
14	148-080-S	ELBOW FITTING 1/8" 6x4	1
15	009-014-S	HEXAGONAL SPACER. D1/8" L=20	1
16	218-141-S	NOZZLE M6x6	1
17	015-005-S	COPPER WASHER D 1/8"	1
18	148-573,5-S	RAPID FITTING 90° 1/4" for pipe D 8	1
19	024-202-S	MINIMUM PRESSURE VALVE ASSEMBLY	1
20	157-170-S	OIL SEPARATOR FILTER	1
21	023-313-S	OR 2475 VITON	1
22	190-059-S	REDUCTION ELEMENT FROM 1"M TO 3/4" F	1
23	065-813.10-S	PIPE EQUATOR	1
24	237-200-S	AUTOMATIC CONDENSATION DISCHARGER	1

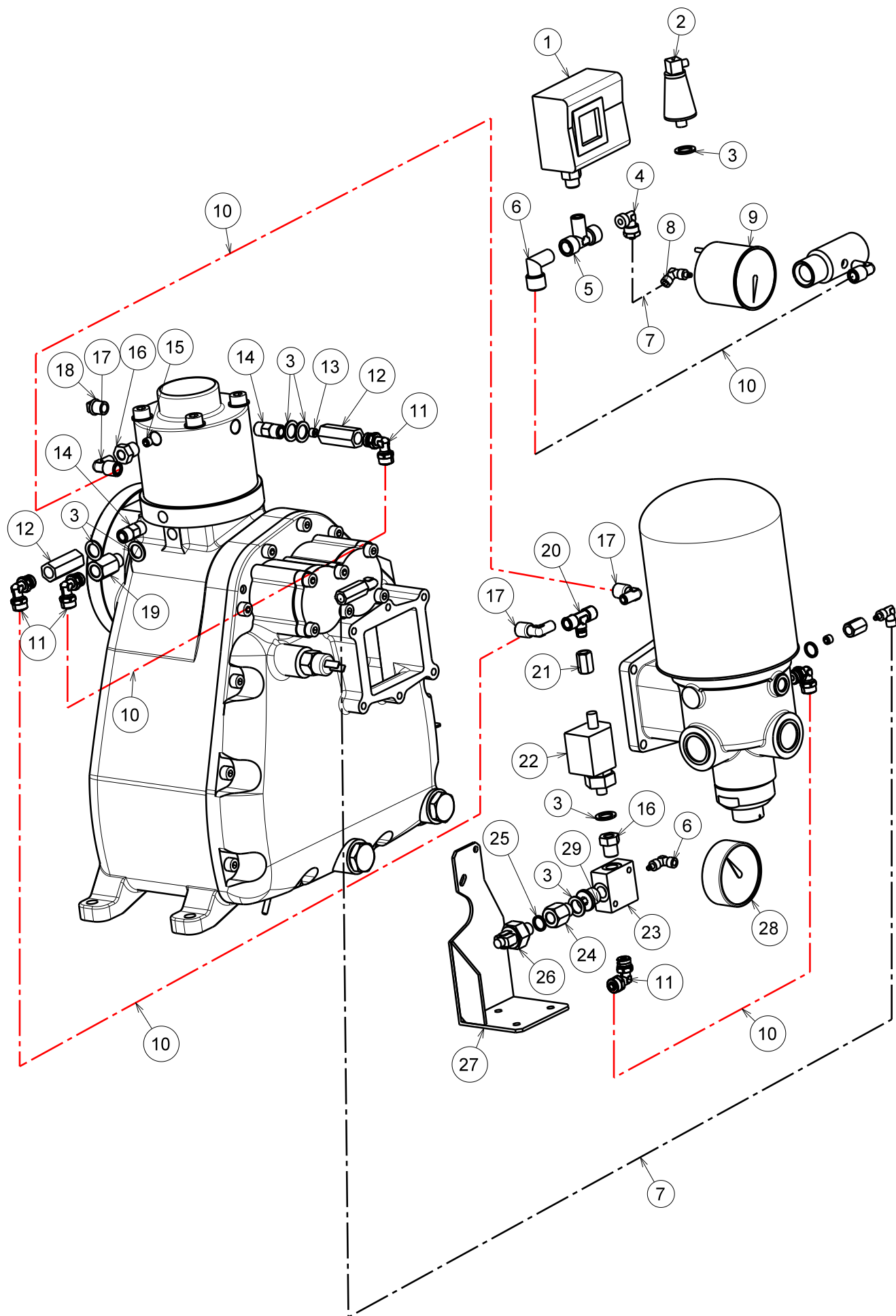




## DETAILS LIST OF RVK 15-20 Restyling (C.E.E.)

**TAB.03/01**  
**REV.01 of the 10/07**

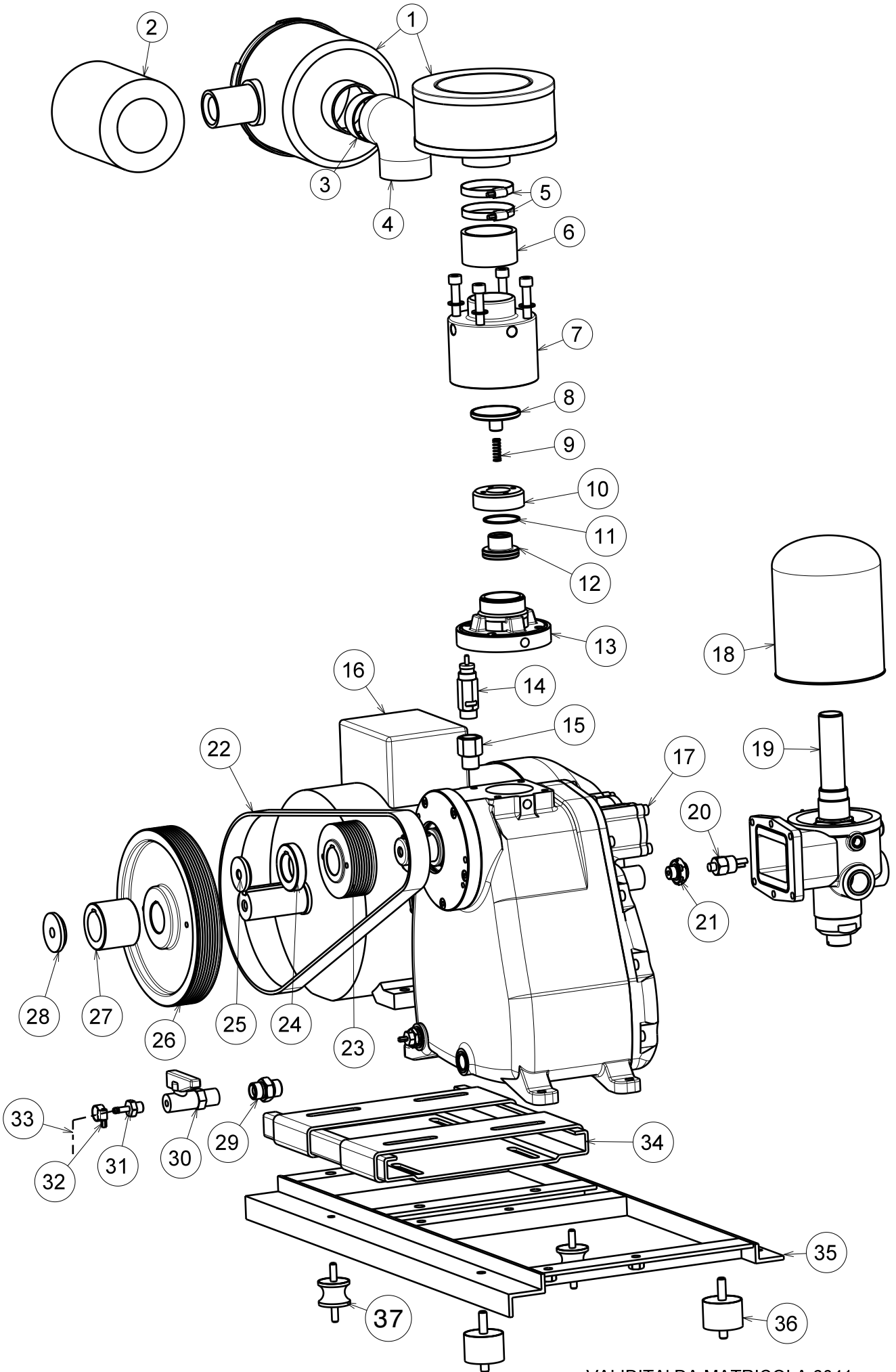
POSITION	CODE	DESCRIPTION	QUANTITY
1	023-028-S	OR CA 38-4125	1
2	106-060-S	OIL LEVEL ROD	1
3	157-172-S	OIL SEPARATOR FILTER (SCREW GROUP)	1
4	064-0032-S	IRON PIPE FROM RADIATOR TO OIL SEPARATOR	1
5	120-1556-S	BLADE RADIATOR SUPPORT	1
6	061-026-S	SILENT BLOCK RADIATOR	4
7	011-0852-S	AIR-OIL RADIATOR	1
8	106-086-S	CAP WITH EMBEDDED HEXAGON 1/4"	2
9	015-007-S	COPPER WASHER D 1/4"	2
10	187-060-S	DOUBLE SCREW 3/4"	2
11	015-015-S	COPPER WASHER D 3/4"	3
12	217-190-S	CONDENSATION SEPARATOR	1
13	148-005-S	STRAIGHT FITTING M+F 3/4" rotating	1
14	148-572-S	RAPID FITTING 90° 1/8" for pipe D 8	2
15	010-1970-S	BLADE CONDENSATION SEPARATOR SUPPORT	1
16	089-0705-S	PIPE RILSAN D 8x6	1
17	148-080-S	ELBOW FITTING 1/8" 6x4	1
18	009-014-S	HEXAGONAL SPACER. D1/8" L=20	1
19	218-141-S	NOZZLE M6x6	1
20	015-005-S	COPPER WASHER D 1/8"	1
21	148-573,5-s	RAPID FITTING 90° 1/4" for pipe D 8	1
22	024-202-S	MINIMUM PRESSURE VALVE ASSEMBLY	1
23	157-170-S	OIL SEPARATOR FILTER	1
24	065-813.10-S	PIPE EQUATOR	1
25	023-313-S	OR 2475 VITON	1
26	015-018-S	COPPER WASHERE D 1"	1
27	190-059-S	REDUCTION ELEMENT 1" M cil. A 3/4 F.cil	1
28	237-200-S	AUTOMATIC CONDENSATION DISCHARGER	1



## DETAILS LIST OF RVK 8-20 Restyling (C.E.E.)

### TAB.04 *REV.01 of the 10/07*

POSITION	CODE	DESCRIPTION	QUANTITY
1	205-010-S	PRESSURE SWITCH (TELMAT)	1
2	205-030-S	TEMPERATURE TRANSDUCER (AIRMASTER,TPC,)	1
3	015-007-S	COPPER WASHER D 1/4"	6
4	148-573-S	90° FITTING 1/4" M for pipe D6	1
5	148-194-S	T-FITTING F+M+F 1/4"	1
6	148-143-S	90° FITTING M+F 1/4"	2
7	089-0605-S	PIPE RILSAN D 6x4	1
8	148-115-S	90° FITTING 1/8" M for pipe D6	1
9	206-020-S	LIQUID GAUGE (TELMAT)	1
10	089-0705-S	PIPE RILSAN D 8x6	5
11	148-573.5-S	90° RAPID FITTING 1/4" for pipe D8	4
12	033-017-S	NON-RETURN VALVE 1/4"	2
13	218-148-S	NOZZLE M8x6	1
14	187-006-S	DOUBLE SCREW 1/4" cil. + 1/4" con.	2
15	218-150-S	NOZZLE M8x8	1
16	190-010-S	REDUCTION ELEMENT 1/4" M con. A 1/4" F cil.	2
17	148-572-S	90° FITTING 1/8" M for pipe D 8	3
18	106-025-S	SQUARE HEAD CAP 1/4"	1
19	189-032-S	EXTENSION 1/4" M A 1/4" F L=32	1
20	148-198-S	T-FITTING F+M+F 1/8"	1
21	009-014-S	HEXAGONAL SPACER 1/8" L=20	1
22	160-070-S	SOLENOID VALVE 24 V	1
23	053-295-S	4-WAY BLOCK UNIT 1/4"	1
24	190-013-S	REDUCTION ELEMENT 1/4" M A 12x1,5 F	1
25	015-006-S	COPPER WASHER D 12,2	1
26	154-035-S	PRESSURE SWITCH	1
27	010-1974-S	VALVE BODY SUPPORT	1
28	206-0205-S	DRY GAUGE	1
29	106-086-S	EXAG. CAP.EMB.1/4"(ONLY VERS. AIRMASTER)	1



## DETAILS LIST OF RVK 8-20 Restyling (C.E.E.)

### TAB.05 *REV.01 of the 10/07*

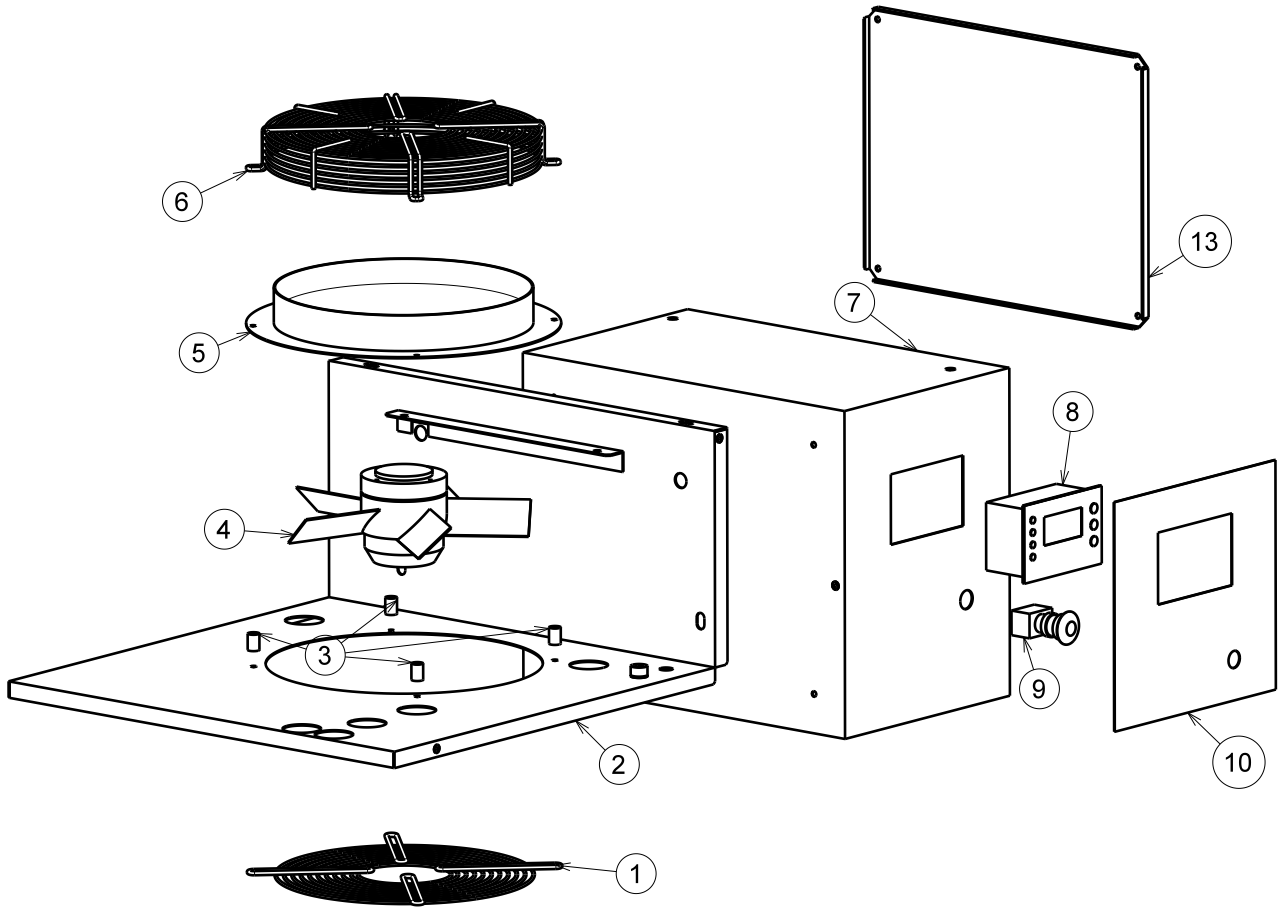
POSITION	CODE	DESCRIPTION	QUANTITY
1	162-578-S	AIR FILTER	1
	014-423-S	AIR FILTER (MANN)	1
2	162-0075-S	CARTRIDGE FOR AIR FILTER cod.014-423-S	1
3	223-5115-S	AIR FILTER BUSH cod.014-423-S	1
4	111-106-S	ELBOW FOR FILTER cod.014-423-S	1
5	149-140-S	PIPE-TIGHTENING STRIP 50x70	2
6	089-0765-S	PIPE L=40	1
7	053-0764-S	REGULATOR BODY	1
8	033-0054-S	SUCTION VALVE RVK 8-10	1
	033-0055-S	SUCTION VALVE RVK 15-20	1
9	043-0114-S	REGULATOR SPRING RVK 8-10	1
	043-0115-S	REGULATOR SPRING RVK 15-20	1
10	194-001-S	ALUMINIUM RING	1
11	199-050-S	SEGMENT	1
12	048-0265-S	REGULATOR PISTON	1
13	034-0075-S	REGULATOR BASE	1
14	033-051-S	SAFETY VALVE 1/2" 11 BAR	1
	033-053-S	SAFETY VALVE 1/2" 13 BAR	1
	033-0575-S	SAFETY VALVE 1/2" 15 BAR	1
15	189-007-S	EXTENSION 1/2"Mcon.+1/2"F NPT (only U.S.A)	1
16	178-0903-S	ELECTRIC MOTOR RVK 20 20 HP 400V	1
	178-0635-S	ELECTRIC MOTOR RVK 15 15 HP 400V	1
	178-0502-S	ELECTRIC MOTOR RVK 10 10 HP 400V	1
	178-032-S	ELECTRIC MOTOR RVK 8 8 HP 400V	1
17	024-0867-S	SCREW GROUP	1
18	157-170-S	OIL SEPARATOR FILTER	1
19	024-202-S	MINIMUM PRESSURE VALVE ASSEMBLY	1
20	103-012-S	THERMO-CONTACT	1
21	190-024-S	REDUCTION ELEMENT M 16x1,5 con.	1

# ROTAIR S.p.A.

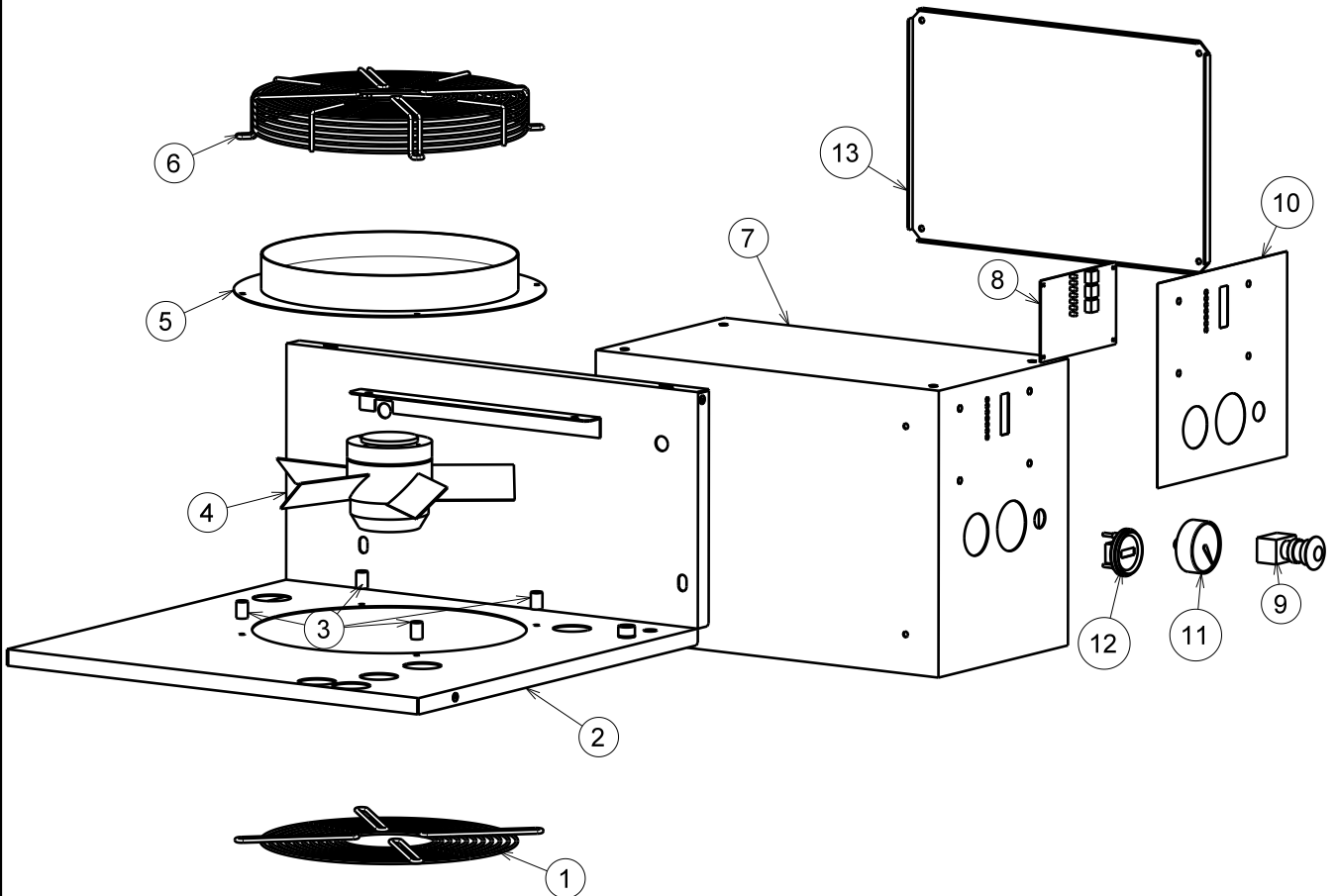
22	156-0755-S	BELT RVK 8	1
	156-076-S	BELT RVK 10	1
	156-078-S	BELT RVK 15/8 bar	1
	156-0765-S	BELT RVK 15/10 bar	1
	156-003-S	BELT RVK 20/8 bar	1
	156-0083-S	BELT RVK 20/10 bar	1
23	050-415-S	COMPRESSOR PULLEY RVK 8-15	1
	050-4106-S	COMPRESSOR PULLEY RVK 20	1
24	009-139-S	CLOSURE SPACER COMPRESSOR PULLEY.	1
25	015-063-S	COMPRESSOR PULLEY SECURING WASHER	1
26	050-350-S	MOTOR PULLEY RVK 8/8 bar	1
	050-416-S	MOTOR PULLEY RVK 8/10 bar	1
	050-417-S	MOTOR PULLEY RVK 10/8 bar	1
	050-355-s	MOTOR PULLEY RVK 10/10 bar	1
	050-418-s	MOTOR PULLEY RVK 15/8 bar	1
	050-419-s	MOTOR PULLEY RVK 15/10 bar	1
	050-406-s	MOTOR PULLEY RVK 20/8 bar	1
	050-407-S	MOTOR PULLEY RVK 20/10 bar	1
27	009-216-S	CLOSURESPACER MOTOR PULLEY.	1
28	015-052-S	MOTOR PULLEY SECURING WASHER	1
29	190-0015-S	REDUCTION ELEMENT 1/2" M NPT - 1/4" F	1
30	152-015-S	1/4"M + 1/4" F BALL COCK	1
31	148-198.1-S	FITTING.1/4 M PIPE D.6 RESCA RUBBER HOLDER	1
32	149-005-S	PIPE-TIGHTENING STRIP	1
33	089-100-S	PIPE KRISTALL	1
34	039-059-S	MOTOR-SLIDE SUPPORT	1
35	034-0523-S	MOTOR-COMPRESSOR BASE	1
36	061-011-S	SILENT BLOCK ROUND M10	2
37	061-0276-S	SILENT BLOCK ROUND M8	2

\* **MODIFIED ITEMS IN VERSION 01**  
**VALID FROM SERIAL NUMBER 6041**

VERSIONI CON CASSETTA ELETTRICA E SCHEDA ELETTRONICA AIRMASTER



VERSIONE CON CASSETTA ELETTRICA E SCHEDA ELETTRONICA TELMAT



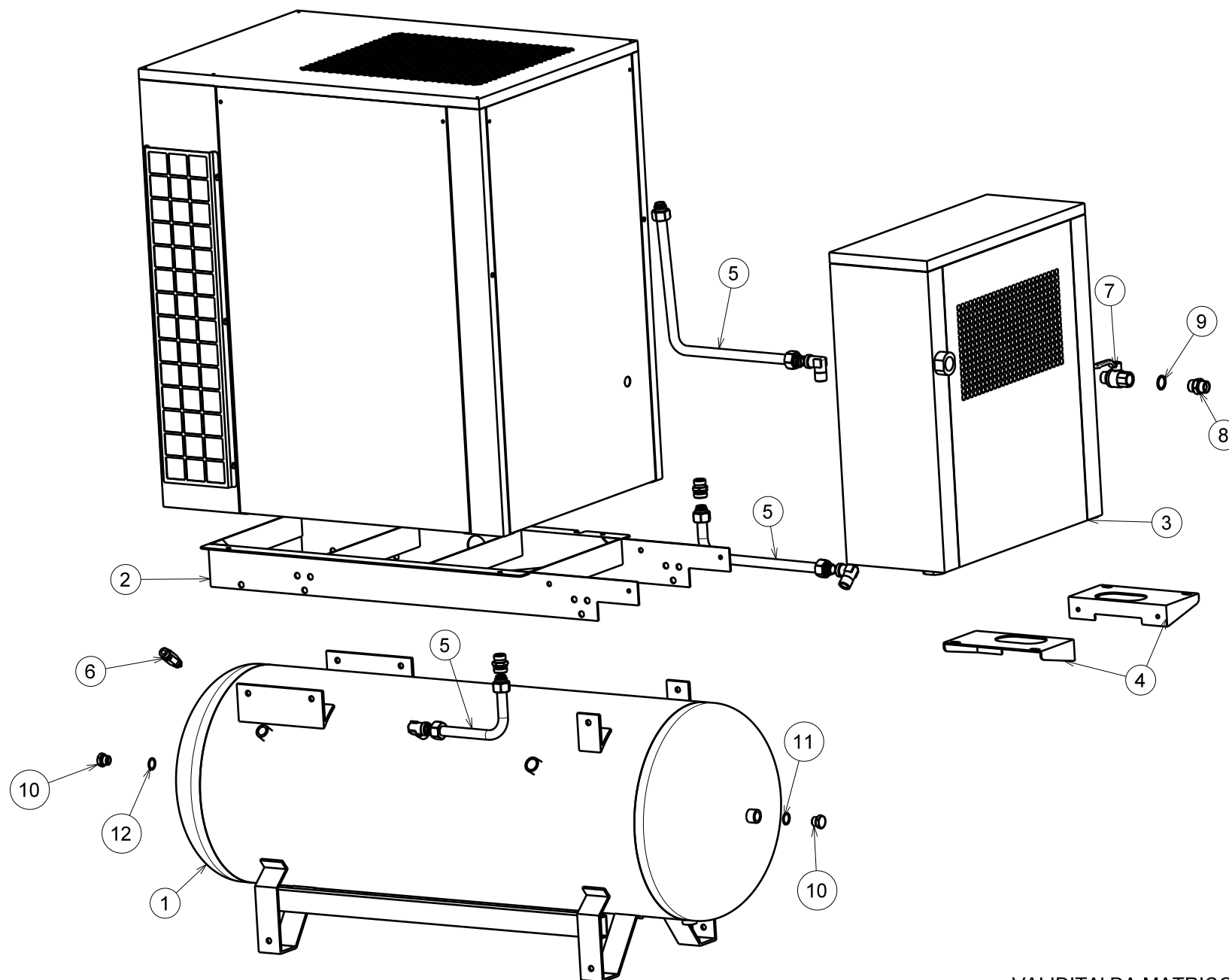
## DETAILS LIST OF RVK 8-20 Restyling (C.E.E.)

**TAB.06**  
**REV.01 of the 10/07**

POSITION	CODE	DESCRIPTION	QUANTITY
1	124-2188-S	LOWER FAN PROTECTIVE PANEL WITH GRATING	1
2	124-20422-S	INNER PANEL SUPP.RAD.+ FAN	1
3	009-0729-S	SPACER D 9x14 L=20	4
4	083-700-S	ELECTRIC FAN	1
5	041-056-S	AIR CONVEYOR	1
6	124-2183-S	FAN PROTECTIVE PANEL WITH GRATING	1
7	029-19515-S	ELECTRIC BOX AIRMASTER	1
	029-1953-S	ELECTRIC BOX AIRMASTER WHIT INVERT.	1
	029-1960-S	ELECTRIC BOX TELMAT	1
	029-1953-S	ELECTRIC BOX TELMAT WHIT INVERTER	1
8	269-410-S	ELECTRONIC CARD TELMAT	1
	269-4005-S	ELECTRONIC CARD AIRMASTER	1
9	154-066-S	EMERGENCY SWITCH	1
10	238-2170-S	CONTROL PANEL STICKER NEUTRO	1
	238-2171-S	CONTROL PANEL STICKER TELMAT	1
11	167-030-S	CAPILLARY THERMOMETER (ONLY TELMAT)	1
12	180-010-S	COUNTER (ONLY TELMAT)	1
13	**	ELECTRICAL APPLIANCES	1

\*\*INDICATE MACHINE POWER RATING, VOLTAGE AND MODEL ON THE ORDER





## DETAILS LIST OF RVK 8-20 Restyling (C.E.E.)

**TAB.07**  
**REV.01 of the 10/07**

POSITION	CODE	DESCRIPTION	QUANTITY
1	037-108-S	TANK "SICC" HORIZONTAL 270 L.	1
	037-108.1-S	TANK "SEA" HORIZONTAL 270 L	1
	037-109-S	TANK "SEA" HORIZONTAL 500 L.	1
2	034-051-S	TANK.COMPRESSOR BASE	1
3	253-099-S	DRIER RVK 8-10	1
	253-100-S	DRIER RVK 15-20	1
4	010-335-S	DRIER SUPPORT	2
	010-3352-S	DRIER SUPPORT ( RVK+ DRIER)	1
5	066-7076-S	SERIES IRON PIPING RVK8-10 COMPR. AND TANK.	1
	066-7070-S	SERIES IRON PIPING RVK15-20 COMPR. AND TANK.	1
	066-7077-S	SERIES IRON PIPING RVK8-10 COMPR. AND DRIER	1
	066-7071-S	SERIES IRON PIPING RVK15-20 COMPR. AND DRIER	1
	066-7078-S	SERIES IRON PIPING RVK8-10 COMPR+DRIER+TANK	1
	066-7072-S	SERIES IRON PIPING RVK15-20 COMPR+DRIER+TAN	1
6	033-040-S	SAFETY VALVE 1/2" 11,17 bar	1
	033-053-S	SAFETY VALVE 1/2" 14,2 bar	1
7	152-030-S	BALL VALVE 3/4" M+F	1
8	187-060-S	DOUBLE SCREW 3/4"	1
9	015-015-S	COPPER WASHER 3/4"	1
10	106-125-S	HEXAGONAL HEAD IRON CAP MALE 1/2 "	2
11	015-012-S	COPPER WASHER 1/2"	2

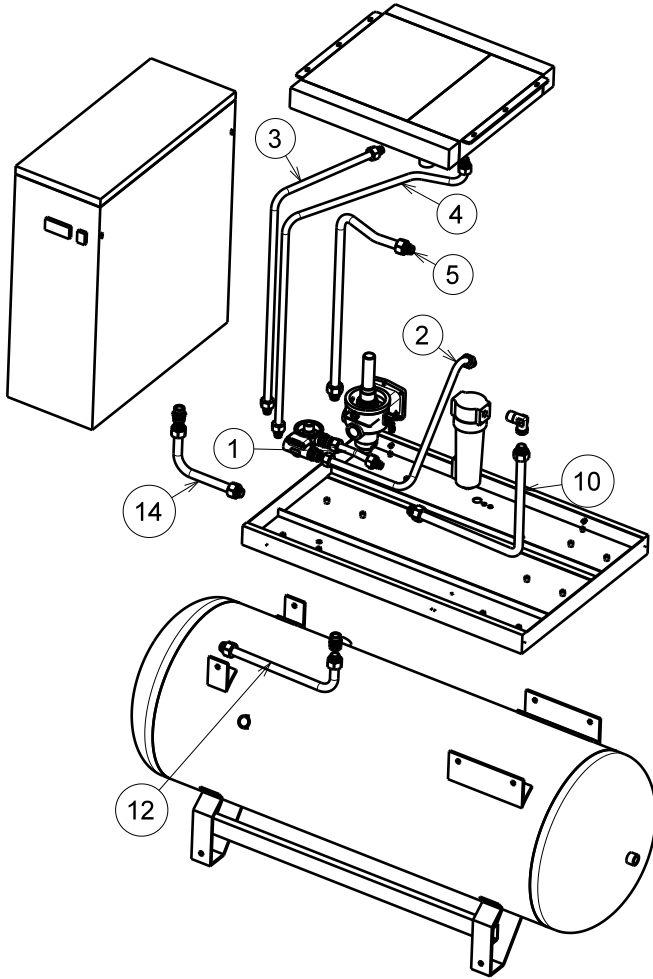
Rev. 01 del 10/07

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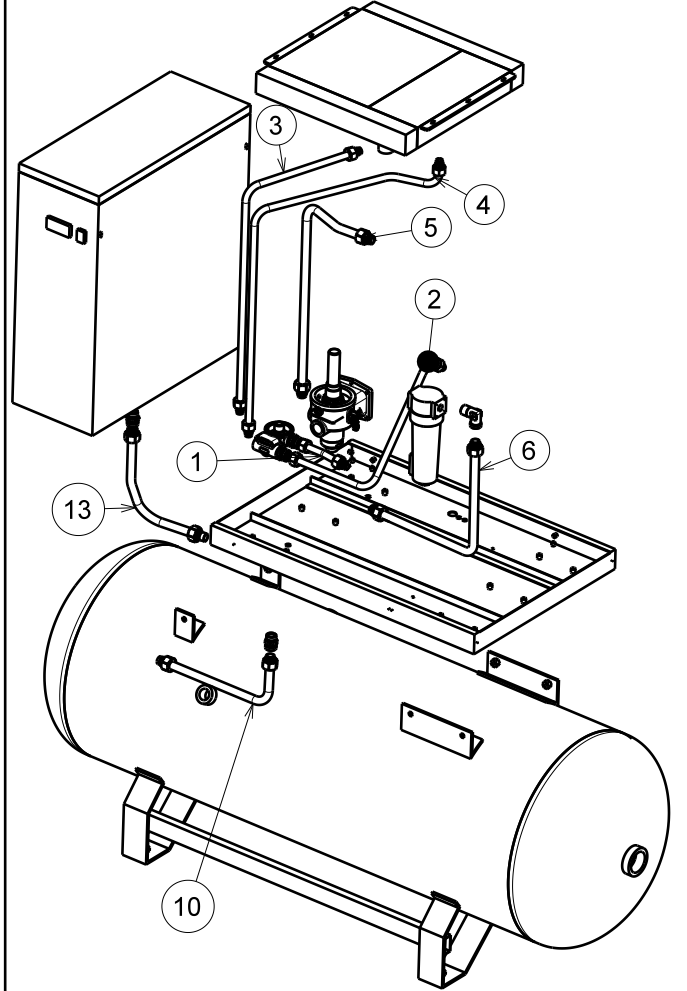
RVK 8-20 Restyling

ROTAIR S.p.A.

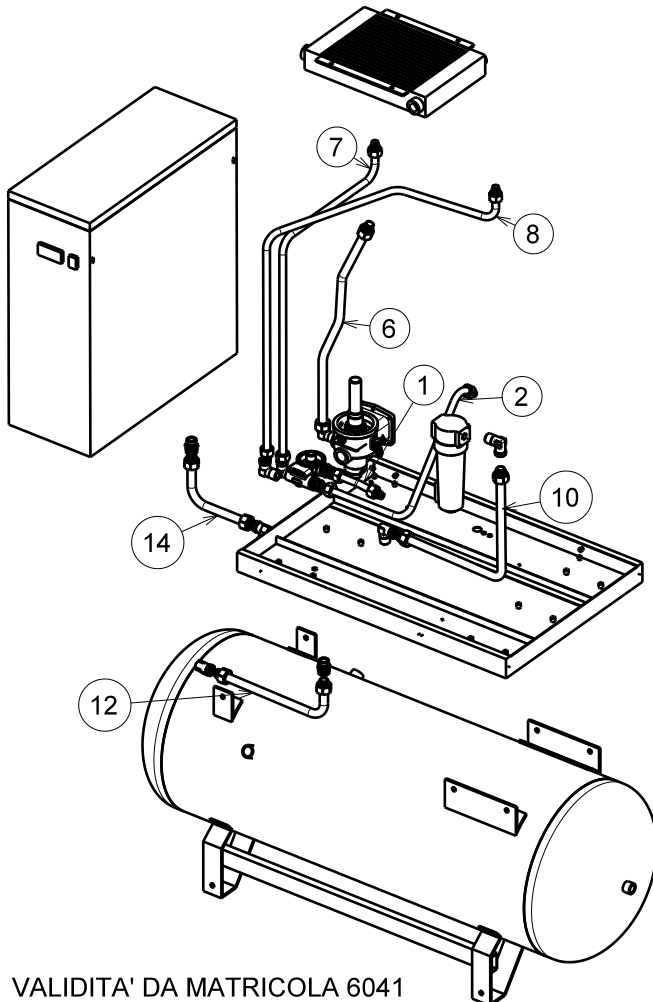
RVK 15-20 + essicatore + serb. 270Lt



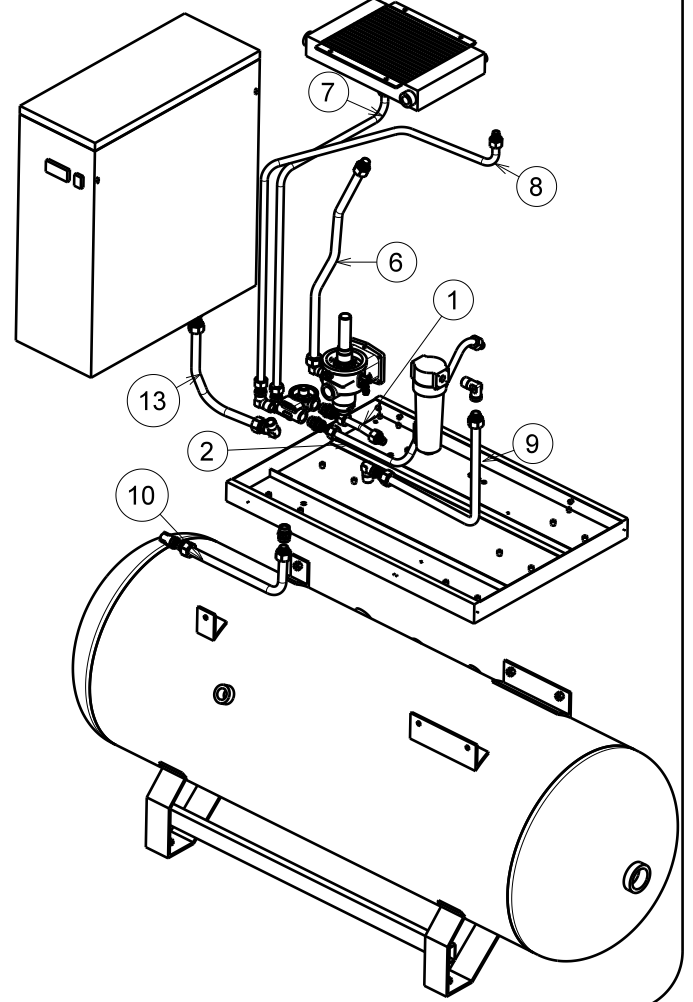
RVK 15-20 + essicatore + serb. 500Lt



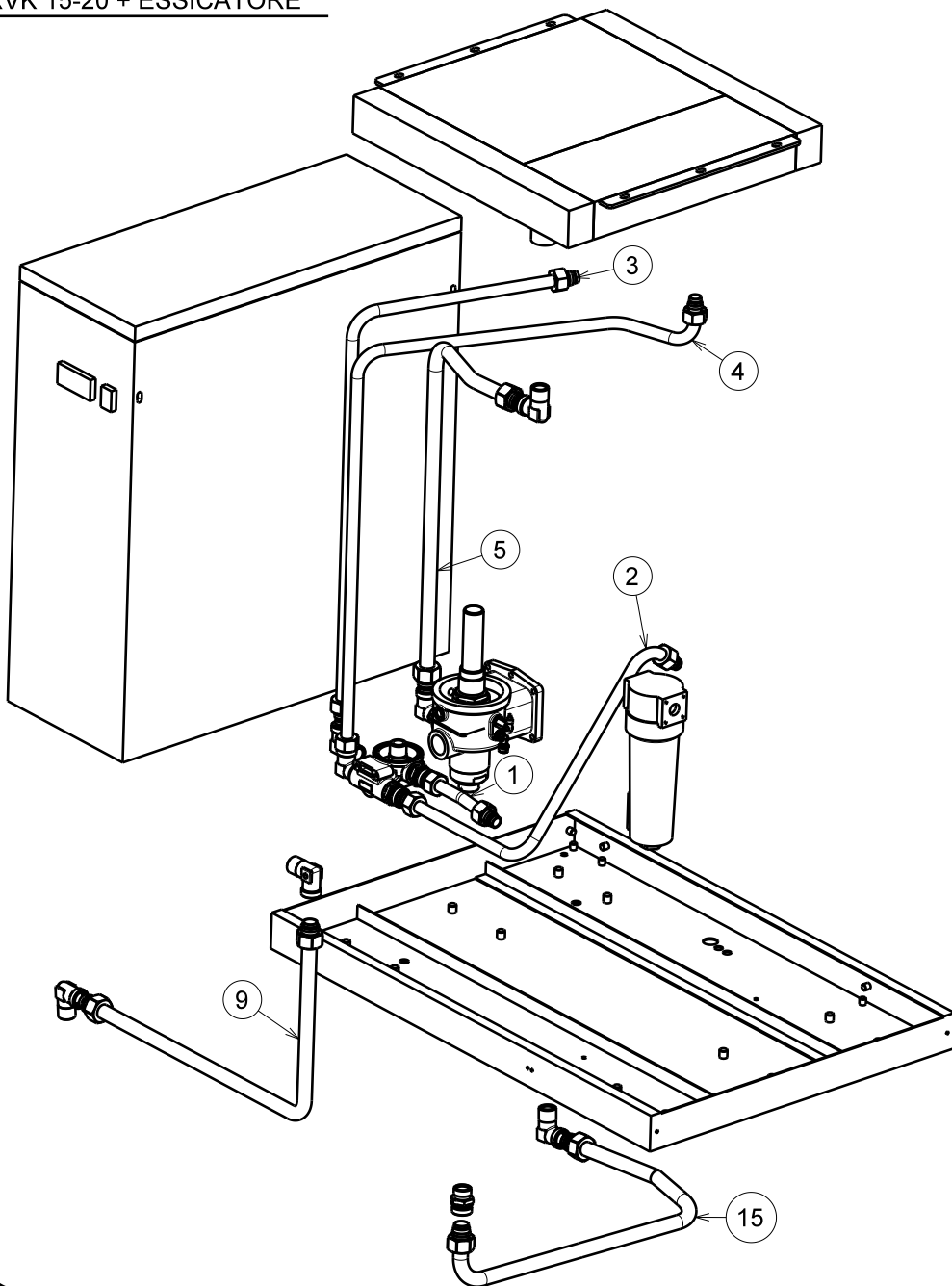
RVK 8-10 + essicatore + serb. 270Lt



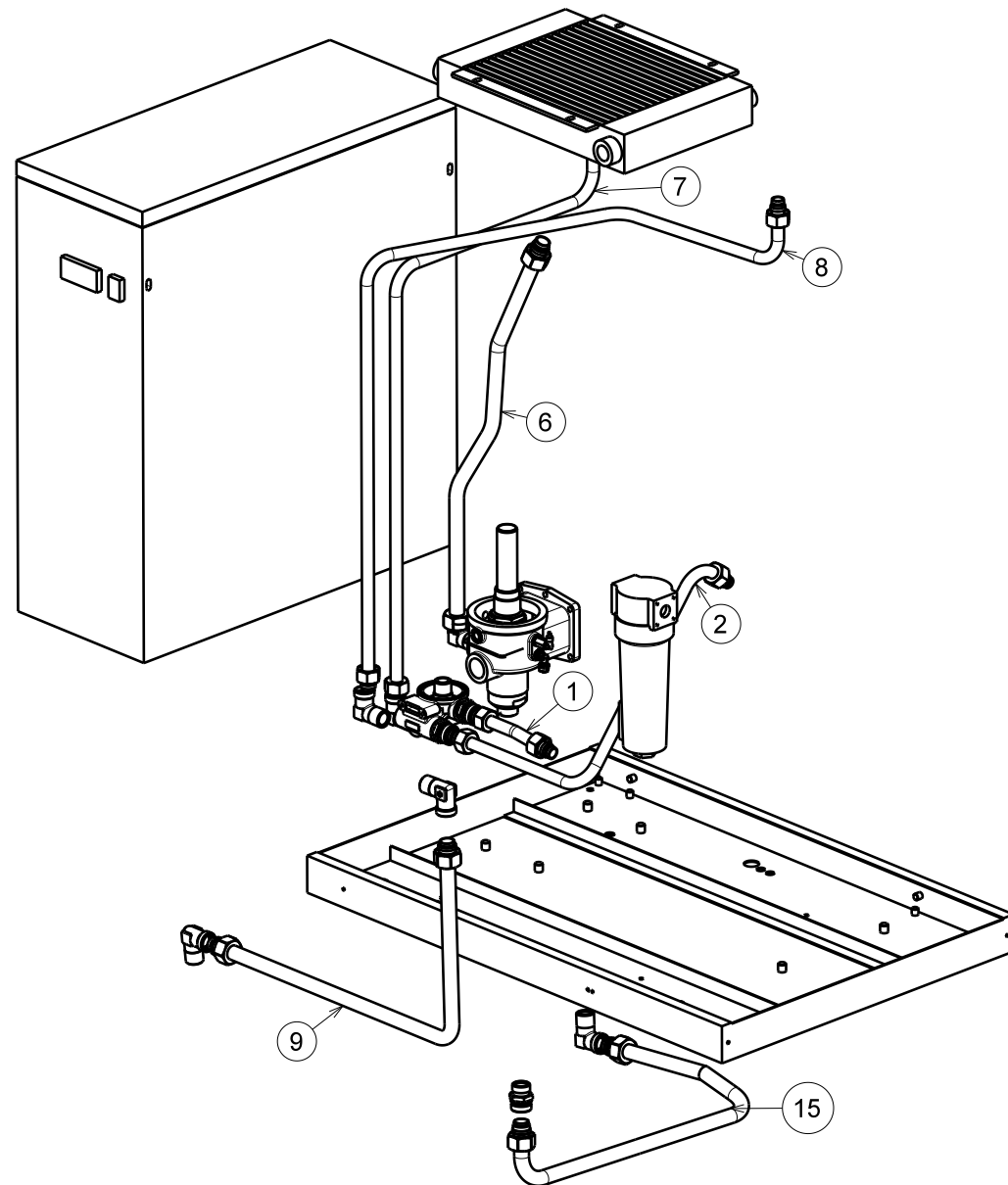
RVK 8-10 + essicatore + serb. 500Lt



RVK 15-20 + ESSICATORE



RVK 8-10 + ESSICATORE



## TABLE LISTING ALL THE IRON PIPING FOR EACH MACHINE MODEL RVK 8-10 / 15-20 RESTYLING

NO.	CODE	DESCRIPTION	ELECTRO-COMPRESSOR VERSION											
			RVK 8-10	RVK 15-20	RVK 8-10	RVK 15-20	RVK 8-10	RVK 15-20	RVK 8-10	RVK 15-20	RVK 8-10	RVK 15-20	RVK 8-10	RVK 15-20
			COMPRESSOR		COMPR.+ DRIED		COMPR.+ TANK		COMPR.+DRIED+TANK		COMPR.+ TANK 500 L		COMPR.+DRIED+TANK	
1	064-01800-S	FROM INTEGRATED TO BY PASS	X	X	X	X	X	X	X	X	X	X	X	X
2	064-01810-S	FROM BY-PASS TO SCREW INJECTION	X	X	X	X	X	X	X	X	X	X	X	X
3	064-01820-S	FROM BY-PASS TO RADIATOR EXIT		X		X		X		X		X		X
4	064-01830-S	FROM BY-PASS TO RADIATOR ENTR.		X		X		X		X		X		X
5	064-0032-S	FROM OIL SEPARATOR TO RADIATOR		X		X		X		X		X		X
6	064-01700-S	FROM OIL SEPARATOR TO RADIATOR	X		X		X		X		X		X	
7	064-01710-S	FROM BY-PASS TO RADIATOR ENTR.	X		X		X		X		X		X	
8	064-01720-S	FROM BY-PASS TO RADIATOR EXIT	X		X		X		X		X		X	
9	064-0021-S	FROM CHASSIS TO COND. SEPARATOR									X	X	X	X
10	064-0022-S	FROM CHASSIS TO COND. SEPARATOR			X	X								
11	064-0092-S	FROM CHASSIS TO TANK					X	X	X	X				
12	064-0091-S	FROM CHASSIS TO TANK												
13	064-0112-S	FROM TANK TO DRIED											X	X
14	064-0111-S	FROM TANK TO DRIED									X	X		
15	064-0102-S	FROM CHASSIS TO DRIED			X	X								

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