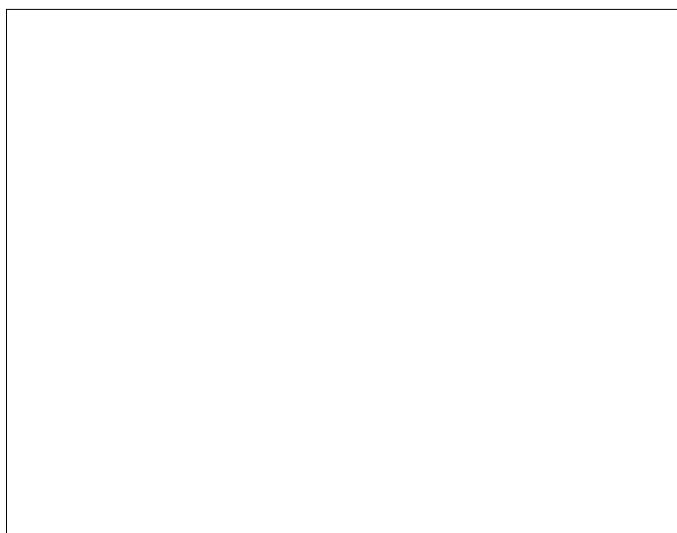


USE AND MAINTENANCE MANUAL

SILENT ELECTRIC ROTARY SCREW COMPRESSORS

Silver



WARNING: Read this manual carefully and in full before using the compressor.

IMPORTANT INFORMATION

Read all the operational instructions, safety recommendations and all warnings provided in the instruction manual. Most accidents encountered when using the compressor are merely due to the failed observance of basic safety standards.

Accidents are prevented by foreseeing potentially hazardous situations and observing the appropriate safety standards.

The fundamental safety standards are listed in the “SAFETY” section of this manual and also in the section involving the use and maintenance of the compressor.

Hazardous situations to be avoided in order to prevent serious personal injuries and machine damages are listed in the “WARNINGS” section of the instruction manual or are actually printed on the machine.

Never use the compressor improperly but only as recommended by the **Manufacturer**.

The **Manufacturer** reserves the right to up-date the technical information given in this manual without notice.

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0 Foreword

0.1 How to read and use the instruction manual

0.1.a Importance of the manual

This **INSTRUCTION MANUAL** has been written to guide you through the **INSTALLATION, USE** and **MAINTENANCE** of the compressor purchased.

We recommend that you strictly observe all the indications given within as the ideal operational efficiency and lasting wear of the compressor depend on the correct use and methodical application of the maintenance instructions given hereafter.

Remember that when any doubts or inconveniences arise it is a good rule to always contact the **AUTHORISED SERVICE CENTRES**. They are at your complete disposal for any explanations or jobs required.

The **Manufacturer** therefore declines all liabilities regarding the incorrect use and poor maintenance of the compressor.

The **INSTRUCTION MANUAL** is integral part of the compressor.

Ensure that any up-dates forwarded by the **Manufacturer** are actually added to the manual.

If the compressor is sold on at a later date the manual must be given to the new owner.

0.1.b Conserving the manual

Use and read the manual with care being careful not to damage any part of it.

Do not remove, tear or re-write any parts of the manual for any reason whatsoever.

Keep the manual in a dry and sheltered place.

0.1.c Consulting the manual

This instruction manual is made up of the following:

- **FRONT COVER WITH MACHINE IDENTIFICATION**
- **DETAILED INDEX**
- **INSTRUCTIONS AND/OR NOTES ON THE COMPRESSOR**

The model and serial number of the compressor to which the manual refers and that you have purchased is found on the **FRONT COVER**.

The various **SECTIONS** in which all the notes relative to a certain subject are found in the **INDEX**.

All the **INSTRUCTIONS AND/OR NOTES ON THE COMPRESSOR** aim at pointing out safety warnings and procedures required to use the compressor correctly.

0.1.d Symbols used

The **SYMBOLS** pointed out below are used throughout this manual and their purpose is that of drawing the operator's attention, informing the latter how to behave and how to proceed in each operational situation.



READ THE INSTRUCTION MANUAL

Read the use and maintenance manual carefully before installing and starting the compressor.



GENERAL HAZARDOUS SITUATION

An additional note will point out the type of hazard involved.
Meaning of the indications:

Warning!

This points out a potentially hazardous situation, which if ignored, could cause personal injury and machine damage.

Note!

This enhances crucial information.



RISK OF ELECTRIC SHOCK

Warning: the electrical power supply of the compressor must be disconnected before doing any jobs on the compressor.



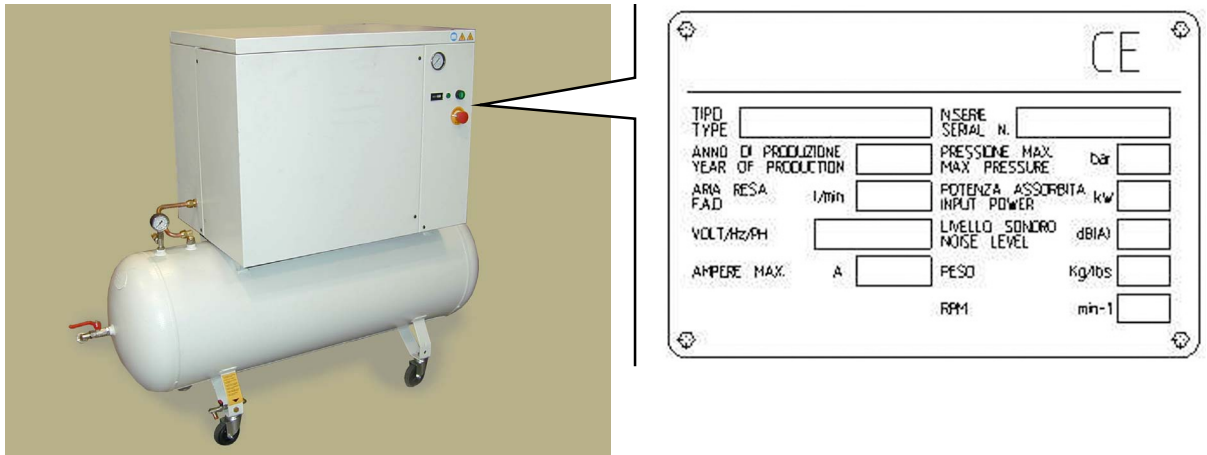
RISK OF SCOLDING

Warning: be careful when touching the compressor as some parts of it could be very hot.

1 General information

1.1 Identification data of the manufacturer and the compressor

COMPRESSOR IDENTIFICATION NAMEPLATE (Example)



Silent electric rotary screw compressor fitted on a tank.

1.2 Information on machine technical/maintenance service

We remind you that our technical service department is at your complete disposal to help you resolve any problems that may possibly be encountered, or to provide you with any other information necessary.

In the case of need contact:

Our **CUSTOMER TECHNICAL SERVICE** department or your local dealer.

The constant and efficient performance of the compressor is ensured only if original spare parts are used.

We recommend therefore that you strictly observe the indications provided in the MAINTENANCE section and to use **EXCLUSIVELY** original spare parts.

We suggest you visit our website: <http://www.fiac-assistance.com>

The use of NON ORIGINAL spare parts automatically annuls the guarantee.

1.3 General safety warnings

Note! The procedures provided in this manual have been written to assist the operator throughout the use and maintenance of the compressor.



IMPORTANT INSTRUCTIONS FOR THE SAFE USE OF THE COMPRESSOR

WARNING: THE INAPPROPRIATE USE AND POOR MAINTENANCE OF THIS COMPRESSOR MAY CAUSE PHYSICAL INJURY TO THE USER. YOU ARE RECOMMENDED TO CAREFULLY FOLLOW THE INSTRUCTIONS PROVIDED HEREFTER TO AVOID SUCH RISKS.

1. DO NOT TOUCH MOVING PARTS

Never put your hands, fingers or other parts of the body near moving parts of the compressor.

2. NEVER USE THE COMPRESSOR WITHOUT THE SAFETY GUARDS FITTED

Never use the compressor without all the safety guards fitted perfectly in their correct place (i.e. panelling, belt guard, safety valve). If these parts are to be removed for maintenance or servicing purposes, ensure that they are put back in their original place perfectly before using the compressor again.

3. ALWAYS WEAR SAFETY GOGGLES

Always wear goggles or equivalent eye protection means. Never direct compressed air towards any part of your body or that of others.

4. PROTECT YOURSELF AGAINST ELECTRIC SHOCKS

Avoid accidentally touching the metal parts of the compressor with your body, such as pipes, the tank or metal parts connected to earth. Never use the compressor where there is water or in damp rooms.

5. DISCONNECT THE COMPRESSOR

Disconnect the compressor from the electric power supply and completely discharge the pressure from the tank before carrying out any service, inspection, maintenance, cleaning, replacing or inspection jobs of each part.

6. ACCIDENTAL START-UP

Never move the compressor while it is connected to the electrical power supply or when the tank is pressurised. Ensure that the main switch is turned OFF before connecting the compressor to the electrical power supply.

7. STORE THE COMPRESSOR APPROPRIATELY

When the compressor is not in use, it must be stored in a dry room away from atmospheric agents. Keep it out of children's reach.

8. OPERATIONAL AREA

Keep the work area clean and remove any tools that are not required. Keep the work area sufficiently ventilated. Never use the compressor in the presence of flammable liquids or gas. The compressor may produce sparks while running. Do not use the compressor where there may be paints, gasoline, chemical compounds, glues and any other flammable or explosive material.

9. KEEP THE COMPRESSOR OUT OF CHILDREN'S REACH

Prevent children or anyone else from touching the power supply cable of the compressor. All outsiders must be kept at a safe distance from the operational area.

10. WORK CLOTHES

Do not wear unsuitable clothing, ties or jewellery as these may get caught up in moving parts. Wear caps to cover your hair if necessary.

11. PRECAUTIONS FOR THE POWER SUPPLY CABLE

Do not disconnect the power supply plug by pulling on the cable. Keep the cable away from heat, oil and sharp edges. Do not stand on the electrical cable or squash it under heavy weights.

12. LOOK AFTER THE COMPRESSOR WITH CARE

Follow the maintenance instructions. Inspect the power supply cable on a periodic basis and if damaged it must be repaired or replaced by an authorised service centre. Visually check the outside appearance of the compressor, ensuring that there are no visual anomalies. Contact your nearest service centre if necessary.

13. ELECTRICAL EXTENSIONS FOR OUTDOOR USE

When the compressor is used outdoors, use only electrical extensions manufactured for outdoor use and marked as such.

14. WARNING

Pay attention to everything you do. Use your common sense.

Do not use the compressor if you are tired. The compressor must never be used if you are under the effect of alcohol, drugs or medicines, which could make you tired.

15. CHECK FAULTY PARTS OR AIR LEAKS

Before using the compressor again, if a safety guard or other parts are damaged, they must be checked carefully to evaluate whether they may operate as established in complete safety.

Check the alignment of moving parts, hoses, gauges, pressure reducers, pneumatic connections and every other part that may be crucial for the normal operational efficiency of the compressor. All damaged parts must be properly repaired or replaced by an authorised service centre or replaced following the instructions provided in instruction manual.

16. USE THE COMPRESSOR EXCLUSIVELY FOR THE APPLICATIONS SPECIFIED IN THIS INSTRUCTION MANUAL.

The compressor is a machine that produces compressed air.

Never use the compressor for purposes other than those specified in the instruction manual.

17. USE THE COMPRESSOR CORRECTLY

Operate the compressor in compliance with the instructions provided in this manual. Do not allow children to use the compressor or those who are not familiar with it.

18. ENSURE THAT EACH SCREW, BOLT AND GUARD IS FIRMLY SECURED IN PLACE.

19.KEEP THE IN-TAKE GRIDS CLEAN

Keep the motor ventilation grids clean. Regularly clean these grids if the work area is particularly dirty.

20.OPERATE THE COMPRESSOR AT THE RATED VOLTAGE

Operate the compressor at the voltage specified on the electric data plate. You could damage or burn-out the motor if the compressor is operated at a higher or lower voltage than its rated voltage.

21.NEVER USE THE COMPRESSOR IF IT IS FAULTY

If the compressor is noisy or vibrates excessively when running or it seems to be faulty, stop it immediately and check its efficiency or contact your nearest authorised service centre.

22.DO NOT CLEAN PLASTIC PARTS USING SOLVENTS

Solvents such as gasoline, thinners, gas oil or other compounds that contain hydrocarbons may damage the plastic parts. Clean them with a soft cloth and soapy water or other suitable liquids.

23.USE ORIGINAL SPARE PARTS ONLY

The use of non-original spare parts involves the annulment of the guarantee and the abnormal running conditions of the compressor. Original spare parts are available c/o the authorised dealers.

24.DO NOT MODIFY THE COMPRESSOR

Do not modify the compressor. Contact an authorised service centre for all repairs required. An unauthorised modification may impair the efficiency of the compressor and may also cause serious accidents for those who do not have the technical skill required to make such modifications.

25.TURN THE COMPRESSOR OFF WHEN IT IS NOT IN USE

When the compressor is not in use turn the main ON/OFF switch OFF (position "0").

26.DO NOT TOUCH HOT PARTS OF THE COMPRESSOR

To avoid scolding do not touch pipes, the motor or any other hot part.

27.DO NOT DIRECT THE JET OF AIR DIRECTLY TOWARDS THE BODY

To avoid all risks never direct the jet of air towards people or animals.

28.DO NOT STOP THE COMPRESSOR BY PULLING ON THE POWER SUPPLY CABLE

Use the red emergency button to stop the compressor.

29.PNEUMATIC CIRCUIT

Use recommended pneumatic hoses and tools that can withstand the same or a higher pressure than the maximum running pressure of the compressor.

30.SPARE PARTS

Use only original and identical spare parts to replace worn or damaged ones.

Repairs must be made exclusively by authorised service centres.

31.CORRECT USE OF THE COMPRESSOR

The operator must be perfectly familiar with all the controls and compressor characteristics before starting to work with the machine.

32.MAINTENANCE JOBS

The use and maintenance jobs of the commercial components fitted on the machine, but not indicated in this manual, are indicated in the enclosed documents.

33.DO NOT UNSCREW THE CONNECTION WHEN THE TANK IS PRESSURISED

Do not unscrew the connection for any reason whatsoever with the tank pressurised without first checking if the tank is discharged.

34.DO NOT MODIFY THE TANK

It is prohibited to intentionally drill, weld or deform the compressed air tank.

35.IF THE COMPRESSOR IS USED FOR PAINTING JOBS

- a) Do not work in closed rooms or near free flames.
- b) Ensure that the room in which you are working is sufficiently ventilated.
- c) Wear face and nose mask.

36.DO NOT PUT OBJECTS OR PARTS OF THE BODY IN THE PROTECTION GRIDS

Do not put objects or parts of the body in the protection grids to prevent physical injuries and damage to the compressor.



KEEP THESE USE AND MAINTENANCE INSTRUCTIONS CAREFULLY AND GIVE THEM TO PERSONNEL WISHING TO USE THE COMPRESSOR!

WE RESERVE THE RIGHT TO MAKE MODIFICATIONS WHERE NECESSARY WITHOUT NOTICE

2 Preliminary machine information

2.1 General description

The **rotary screw compressor** has been specifically designed aiming at minimising maintenance and labour costs.

The components have been arranged so that all vital parts can be easily reached for maintenance purposes simply by opening dedicated panels.

The filters and adjustment and safety devices (oil filter, air filter, oil separator filter, regulator valve, minimum pressure valve, max. pressure safety valve, thermostat, belt tightener, screw compression unit, pressure switch and oil separator tank emptying and filling taps) are all fitted on the same side.

Note! **The tanks of the compressors have been manufactured in compliance with the EEC/404/87 Directive for the European market.**
The compressors have been manufactured in compliance with the EC/37/98 Directive for the European market.

Note! **Check your model on the identification nameplate fitted on the compressor. It is also indicated in this manual.**

ADVISED LUBRICANTS

Always use oil for turbines with approximately 46 cSt at 40°C and a pour point of at least -8 +10°C. The flash point must be greater than +200°C.



NEVER MIX DIFFERENT OIL QUALITIES.

SCREW OIL

ESSO	EXXCOLUB 46
BP	ENERGOL HLP 46
SHELL	CORENA D 46
TOTAL	AZOLLA ZS 46
MOBIL	DTE OIL 25
DUCKHAMS	ZIRCON 46

Use oil with VG32 rating for cold climates and VG68 for tropical climates.
It is advisable to use synthetic oils for very hot and humid climates.

2.2 Intended use

The silent rotary screw compressors have been designed and manufactured exclusively to produce compressed air. **EVERY OTHER USE, DIFFERENT AND NOT FORESEEN BY ALL INDICATED, RELIEVES THE MANUFACTURER OF POSSIBLE CONSEQUENT RISKS.**

In any event the use of the compressor different to that agreed in the purchase order **RELIEVES THE MANUFACTURER FROM ALL LIABILITIES WITH REGARD TO POSSIBLE MATERIAL DAMAGE AND PERSONAL INJURY.**

The electrical system is not designed for the use in environments subject to explosion or for flammable products.



NEVER DIRECT THE JET OF AIR TOWARDS PEOPLE OR ANIMALS. NEVER USE THE COMPRESSED AIR PRODUCED BY LUBRICATED COMPRESSORS FOR RESPIRATORY PURPOSES OR IN PRODUCTION PROCESSES WHERE THE AIR IS IN DIRECT CONTACT WITH FOODSTUFFS UNLESS IT HAS BEEN FIRST FILTERED AND CONDITIONED FOR SUCH PURPOSE.

2.3 Technical data

Model		Silver 5.5		Silver 7.5		Silver 10	
Max. pressure	bar/psi	8-116	10-145	8-116	10-145	8-116	10-145
Type of rotary screw end		NK40		NK40		NK40	
Free air delivery ISO 1217	l/min	540	410	780	640	950	860
	cfm	19	14,5	26,8	22,5	33	30,2
Air outlet fitting	R	1/2 G	1/2 G	1/2 G	1/2 G	1/2 G	1/2 G
Lubricant qty	l	3	3	3	3	3	3
Fan capacity	m³/h	1800	1800	1800	1800	1800	1800
Oil residue in air	ppm	<3	<3	<3	<3	<3	<3
2-pole electric motor	IEC	MEC112	MEC112	MEC112	MEC112	MEC112	MEC112
Output	Hp/kW	5,5/4	5,5/4	7,5/5,5	7,5/5,5	10/7,5	10/7,5
Protection rating	IP	54	54	54	54	54	54
Service		S 1	S 1	S 1	S 1	S 1	S 1
Max. starts per hour	N°	10	10	10	10	12,3	12,3
Ambient temperature limits	°C (min/max)	5/45	5/45	5/45	5/45	5/45	5/45
Noise level	dB (A)	65	65	66	66	67	67

Sound level measured in a free range at a distance of 1 m: ±3 dB(A) at the maximum working pressure.

3 Transport, Handling, Storage



In order to use the compressor in complete safety read the safety standards given in section 1.3. before reading this section.

3.1 Transporting and handling the packed machine



The packed compressor must be transported by qualified personnel using a forklift truck.

Before moving the machine ensure that the load-bearing capacity of the forklift truck is sufficient to take the weight to be lifted.

Position the forks exclusively as illustrated below. Once the forks have been positioned in the points indicated, lift slowly without jerking.



Never stand near the area where the compressor is being handled and never stand on the crate while it is being moved.

3.2 Packing and unpacking

To avoid damages and to protect the compressor during transport it is usually placed on a wooden pallet, to which it is secured by screws and covered with cardboard.

All the shipping and handling information and symbols are printed on the compressor packing. Upon consignment remove the top part of the packing and check if any damages have been encountered during transport. If any damages are found, caused during transport, immediately make a written claim, backed up with photos of the damaged parts if possible and forward everything to your insurance company, with copy to the **Manufacturer** and transporter.

Using a forklift truck take the compressor as near as possible to the place where it is to be installed then carefully remove the protective packing without damaging it, following the instructions below:

- Remove the packing **1**, by sliding it away upwards.



- Unscrew screws **2** that block the feet that secure the compressor to the pallet (only for models with tank).



Note! The compressor can be left on the packing pallet to make it easier to move.

Carefully ensure that the contents correspond with all written in the consignment documents. Dispose of the packing in compliance with current standards in force in the country of installation.

Note! The machine must be unpacked by qualified personnel using appropriate tools and equipment.

3.3 Storing the packed and unpacked compressor

For the whole time that the compressor is not used before unpacking it, store it in a dry place at a temperature between +5°C and + 45°C and sheltered away from weather.

For the whole time that the compressor is not used after unpacking it, while waiting to start it up or due to production stoppages, place sheets over it to protect it from dust, which may settle on the components.

The oil is to be replaced and the operational efficiency of the compressor is to be checked if it is not used for long periods.

4 Installation



In order to use the compressor in complete safety read the safety standards given in section 1.3. before reading this section.

4.1 Admitted surrounding conditions

Position the machine as established when the order was placed. Failing this the **Manufacturer** is not liable for any inconveniences that may possibly arise. Unless pointed out otherwise when placing the order, the compressor must work regularly in the surrounding conditions indicated below:

ROOM TEMPERATURE

The room temperature must not be lower than 5°C or higher than 45°C to ensure the ideal operational efficiency of the compressor. If the compressor works at a room temperature lower than the minimum value, the condensate could be separated within the circuit and therefore the water would mix with the oil, thus deteriorating the quality of the latter, failing to guarantee the even formation of the lubricating film between the moving parts with the possibility of seizure. If the compressor works at a room temperature higher than maximum value, the compressor would take in air that is too hot, which would prevent the heat exchanger from adequately cooling the oil in the circuit, raising the working temperature of the machine, thus causing the thermal safety device to trip, which stops the compressor due to an excessive temperature of the air/oil mixture at the screw outlet. The maximum temperature of the room is to be measured while the compressor is running.

LIGHTING

The compressor has been designed in compliance with legal prescriptions and in the attempt to minimise shadow zones to facilitate the operator's job. The lighting system of the factory is to be considered as crucial for the operator's safety. The room in which the compressor is installed must have no shadow zones, dazzling lights or stroboscopic effects due to the lighting.

ATMOSPHERE WITH RISK OF EXPLOSION AND/OR FIRE

The standard compressor is not pre-arranged or designed to work in rooms subject to the risk of explosion or fire. The performance of the compressor may decrease at the maximum permitted ambient temperature, with relative humidity higher than 80% and at an altitude of more than 1,000 mt.

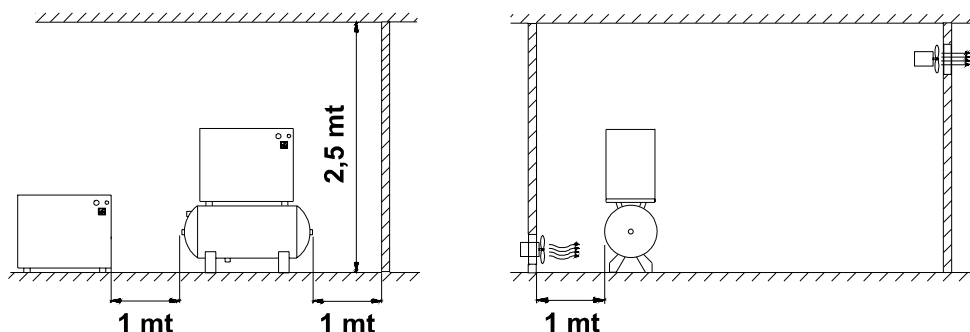
4.1.1 Installing the compressor on the ground

Attention! Compressor versions installed on the ground must strictly be connected to a tank with a capacity of at least 200 litres. The manufacturer is not liable for any related malfunctions or problems if the compressor is connected to a smaller tank.

4.2 Space required for maintenance

The compressor must be installed in a large room that is well-aired, dust-free and sheltered away from rain and frost. The compressor takes in a large amount of air that is required to ventilate it internally. A dusty atmosphere would in time cause damages and inefficient performance.

Part of the dust once inside is taken in by the air filter causing it to clog rapidly and another part of dust will settle on the components and will be blown against the cooling radiator, consequently compromising the efficiency of the heat exchanger. It is therefore obvious that the cleanliness of the area in which the compressor is installed is crucial for the correct efficiency of the machine, avoiding excessive running and maintenance costs. To facilitate maintenance jobs and to create a favourable circulation of air, the compressor must have a sufficient free space all around it (see fig.).



The room must be provided with outlets that lead outdoors near the floor and ceiling that will allow the natural circulation of air. If this is not possible, fit some fans or extractors that guarantee a flow of air that is 50% higher than that produced by the compressor. Minimum recommended fan capacity: 2500 m³/h. Ducts for the inlet and outlet of the air can be used in unfavourable environments. These ducts must be the same size as the in-take and delivery grid. If these ducts are longer than 3 meters contact the **Authorised Service Centre**.

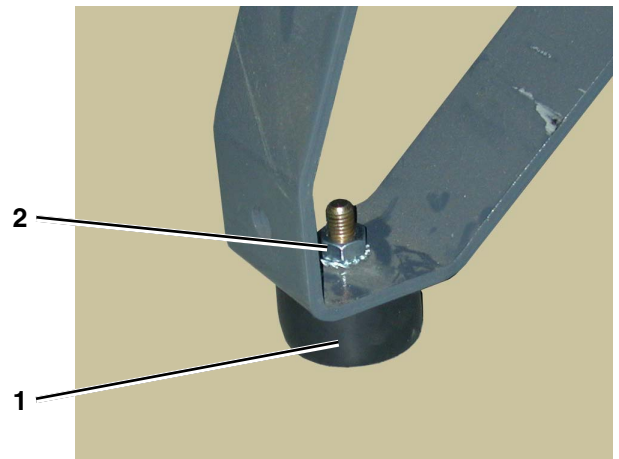
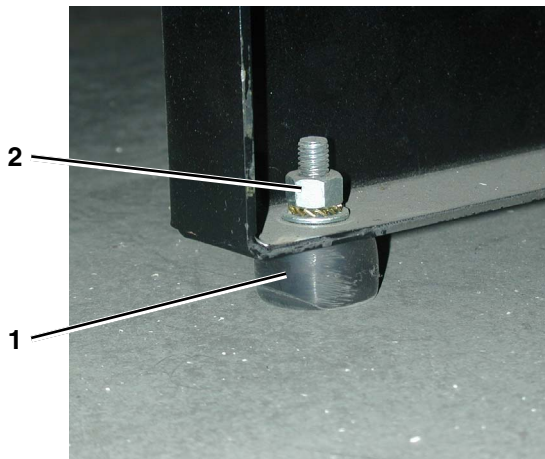
Note! A conveyance system can be fitted to recover the hot ventilation air delivered, which can be used to heat the room or for other purposes. It is crucial that the cross section of the system that recovers the hot air is greater than the total cross section of the grid slots plus the system must be equipped with a forced extraction system (extractor fan) to favour a constant downflow.

4.3 Positioning the compressor

Once the position in which the compressor is to be installed has been identified ensure that the compressor is set on a flat surface.

No special foundations or bases are required for the machine.

Lift the compressor using a forklift truck (forks at least 900 mm long) and fit the vibration-damping feet **1** and block with the nuts **2** under the four resting points where established. Anti-vibration feet are fitted on the floor-based version as standard. They can be fitted on the tank on request.



Do not secure the compressor rigidly to the floor.

4.4 Connecting the compressor to the sources of energy and relative inspections.

4.4.1 Connecting the compressor to the electrical mains power supply



The compressor is to be connected to the electrical mains by the customer, to his exclusive liability, employing specialised personnel and in compliance with the Accident Prevention Norms EN 60204.

INSTRUCTIONS FOR CONNECTING TO EARTH

This compressor must be connected to earth while in use in order to safeguard the operator against electrical shocks. The electrical connection must be carried out by a skilled engineer.

It is advisable never to dismantle the compressor or even to make any other connections. All repairs must be carried out exclusively by authorised service centres or other qualified centres.

The earth wire of the power supply cable of the compressor must be connected only and exclusively to the **PE** pin of the terminal board of the actual compressor.

Before replacing the plug of the power supply cable ensure that the earth wire is connected.

EXTENSION CABLE

Use only extension cables with plug and earth connection. Never use damaged or squashed extension cables. Ensure that the extension cable is in a good state of wear. When using an extension cable, ensure that the cross section of the cable is sufficient to convey the current absorbed by the product to be connected. If the extension cable is too thin there could be drops in voltage and therefore loss in power and overheating of the equipment.

The extension cable of the three-phase compressors must have a cross section in proportion with its length: see table below:

CORRECT CROSS SECTION FOR THE MAXIMIM LENGTH OF 20M

HP	kW	220/240V 50/60 Hz 3 ph	380/415V 50/60 Hz 3 ph
5.5	4	4 mm ²	2,5 mm ²
7.5	5.5	6 mm ²	2.5 mm ²
10	7.5	10 mm ²	4 mm ²



Avoid all risks of electrical shocks. Never use the compressor with damaged electrical cables or extension cables. Regularly check the electrical cables. Never use the compressor in or near water or near a hazardous area where electrical shocks may be encountered

ELECTRICAL CONNECTION

Three-phase compressors must be installed by a specialised technician. Three-phase compressors are supplied with a power supply cable without plug.



It is advisable to install the connector, magneto thermal switch and fuses near the compressor (3 m away at the most). The magneto thermal switch and the fuses must have the characteristics indicated in the table below:

Power kW/Hp	Rated voltage 380/415V		Rated voltage 220/240V	
	Magneto thermal switch	Fuse	Magneto thermal switch	Fuse
4/5,5	20 A	25 A	25 A	35 A
5,5/7,5	25 A	25 A	32 A	36 A
7,5/10	25 A	30 A	40 A	40 A

Note! The fuse parameters indicated in the table above refer to the **gl** type (**standard**). If cartridge fuses type **aM** are used (**delayed**) the parameters in the table are to be reduced by 20%. The parameters of the magneto thermal switches refer to switches type **K**.

Ensure that the installed power in kW is at least double the input of the electric motor. All the **silent rotary screw compressors** are equipped with direct starting system (with the exception of the 10 HP unit that is supplied standard with star/delta starting system). In alternative you can request the star/delta starting system also for the 5.5/7.5 HP units (this system starts-up the motor with less consumption of electricity). The mains voltage must correspond with that indicated on the electrical data nameplate of the machine; the admitted tolerance must remain within +/- 6%.

EXAMPLE:

Voltage, 400 Volt: minimum tolerance 376 Volt

Voltage, 400 Volt: maximum tolerance 424 Volt

The plug of the power supply cable must never be used as a switch but must be plugged into a power socket that is controlled by an adequate differential switch (magneto thermal switch).



Never use the earth connection instead of the neutral. The earth connection must be achieved according to the EN 60204 industrial safety standards.

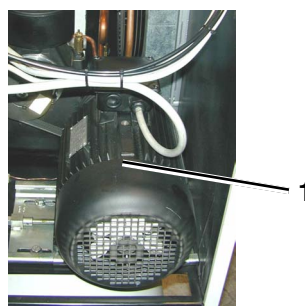
Ensure that the mains voltage corresponds with that required for the correct operation of the compressor.

CHECK THE ROTATION DIRECTION

Check the correct rotation direction, observing the arrow on the motor **1**.

If the motor should run in the wrong direction, invert a wire within the plug of the power supply cable.

Warning! The incorrect rotation direction for more than 20 seconds will irreparably damage the compressor.



4.4.2 Connecting to the pneumatic mains



**Always use pneumatic hoses for compressed air with the maximum pressure characteristics and cross section suitable for those of the compressor.
Do not try to repair a faulty hose.**

Connect the compressor to the pneumatic mains using the fitting **1**.
Use hosing with a greater or same diameter as the compressor outlet.



4.4.3 Connecting to the pneumatic mains (compressor a on the ground)



**Always use pneumatic hoses for compressed air with the maximum pressure characteristics and cross section suitable for those of the compressor.
Do not try to repair a faulty hose.**

Connect the compressor to the pneumatic mains using the fitting **1** pre-arranged on the compressor.
Use hosing with a greater or same diameter as the compressor outlet.



Install two ball taps with capacity suitable for the compressor between the compressor and tank and between the tank and line. Do not install non-return valves between compressor and tank. The non-return valve is already installed inside the compressor.

5 Using the compressor



In order to use the compressor in complete safety read the safety standards given in section 1.3. before reading this section.

5.1 Preparing to use the compressor

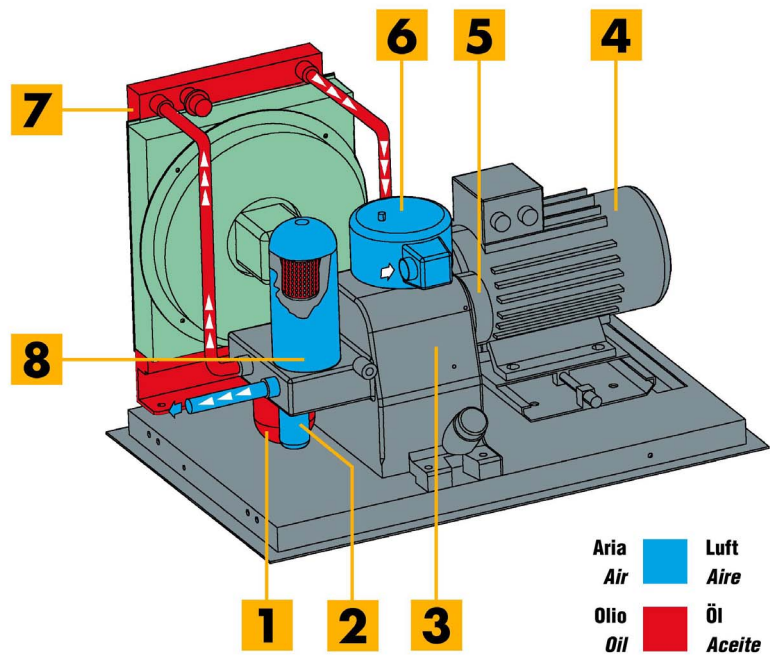
5.1.1 Operational principle

The air taken-in by the filter passes through a valve that controls its flow rate to the screw where, mixing with the oil, it is compressed.

The air/oil mix produced by compression reaches a tank where the initial separation by gravity is achieved; as the oil is heavier, it settles on the bottom, it is then cooled and sent through a heat exchanger, filtered and injected into the screw again (The temperature is kept under control by an electric fan that is directly controlled by a thermostat fitted on the heat exchanger and based on the indication of the same).

The oil is required to cool the heat produced during the compression phase, to lubricate the bearings and to seal the coupling between the screw lobes. The air is filtered through the oil separator filter to clean it from oil residues (in the 10 HP unit only, the air is further cooled through a heat exchanger) and is let out through the utility at a low temperature and with acceptable oil residues (3 p.p.m.). A safety system controls the various crucial points of the machine and points out possible anomalies.

A thermal protection device is fitted on the electric motor, which stops the machine if necessary.



1 Filtro olio	Oil filter	Ölfilter	Filtro aceite	1
2 Valvola pressione minima	Minimum pressure valve	Mindestdruckventil	Válvula presión mínima	2
3 Gruppo vite	Air end	Schraubengruppe	Grupo tornillo	3
4 Motore elettrico	Electric motor	Elektromotor	Motor eléctrico	4
5 Cinghia trasmissione	Transmission belt	Antriebsriemen	Correa de transmisión	5
6 Filtro aria	Air filter	Luftfilter	Filtro aire	6
7 Radiatore olio	Oil radiator	Ölradiator	Radiador aceite	7
8 Filtro separatore	Oil separator	Ölabscheider	Filtro separador	8

5.2 Controls, indicators and safety devices of the compressor

5.2.1 Control panel

The control panel is made up of a set of buttons required for the main operational and control functions of the compressor.

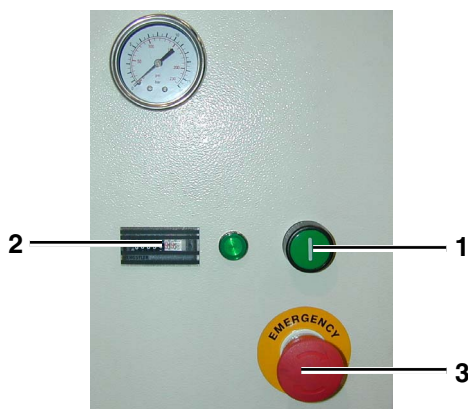
1 START PUSH BUTTON

Press this button to start the compressor.

2 RUNNING HOUR METER

3 EMERGENCY STOP BUTTON (STOP)

This button has a mechanical locking device and is used to immediately stop the compressor in the case of emergency or if you should need to stop the compressor for other reasons. When the button is pressed and locked, it is impossible to start the compressor. To be able to start the compressor again, turn the emergency button to release it then press the start button.



If the compressor stops because the maximum pressure has been reached, you need to wait 40 seconds before attempting to start again.

5.2.2 Auxiliary control devices

1 AIR CIRCUIT PRESSURE CONTROL GAUGE

2 MOTOR THERMAL PROTECTION SWITCH RESET BUTTON

Positioned outside the electric cabinet.

Hold this button down for a few seconds to reset the motor trip switch.

3 OIL THERMOSTAT RESET BUTTON

Unscrew cover 3 to access the button.



1



2

3

5.3 Check the efficiency of the safety devices before starting

OIL LEVEL

Check the oil level as indicated in **Section 6 “Compressor maintenance”**.



DO NOT START THE COMPRESSOR WITH THE GUARDS OPEN TO AVOID INJURY DUE TO MOVING COMPONENTS OR ELECTRICALLY POWERED EQUIPMENT.

5.4 Starting the compressor

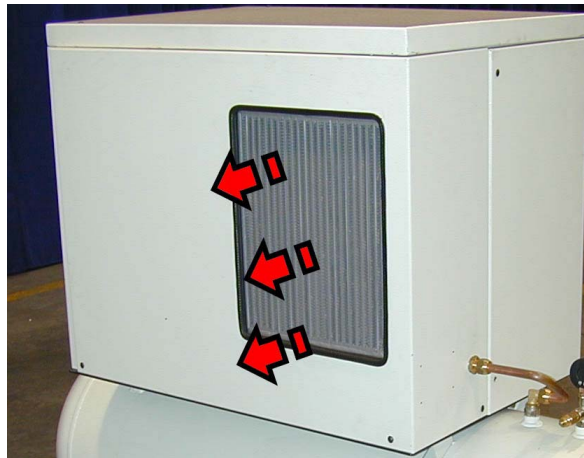


Following an electrical shortage the compressor will start only if the **START (I)** button is pressed.

Ventilation must occur as illustrated below.

It is of crucial importance that the compressor works with all the panels firmly closed.

The failed observance of these and the following standards may lead to accidents that could cause personal injury and serious damages to the compressor or its equipment.



Before initially starting the compressor or following extended inoperative periods, start the machine intermittently by pressing the **START(I)-EMERGENCY/STOP** buttons on and off for 3 or 4 seconds. After this it is advisable to run the compressor for a few minutes with the air outlet tap open. Then gradually shut-off the air tap and load to maximum pressure, checking if the inputs on each phase of the power supply are within the limits and also if the pressure switch trips. At this stage, once the maximum pressure has been reached, the pressure switch stops the compressor immediately; release air from the tank until the starting pressure is restored (2 bar difference compared to maximum working pressure), shut-off the air outlet tap and wait for the pressure switch to trip, which will open the suction valve and close the internal discharge.

CALIBRATION AND SETTINGS MADE BY THE MANUFACTURER

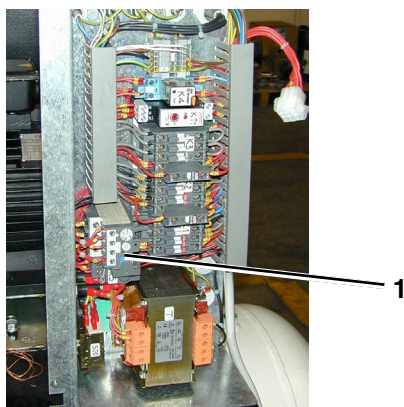
The **minimum pressure values** set are: 6, 8 and 11 for the 8, 10 and 13 bar models respectively.

Warning! Disconnect the electrical power supply from the compressor before opening the electrical cabinet.

The **thermal relay 1 F1** is set according to the table below:

- for versions with direct starting

Power Hp	Rated voltage 380/415V-3ph	Rated voltage 220/240V-3ph
5,5	8,7 A	15,1 A
7,5	11,2 A	19,3 A



- for versions with remote controlled starting

Power Hp	Rated voltage 380/415V-3ph	Rated voltage 220/240V-3ph
5,5	5,0 A	8,7 A
7,5	6,5 A	11,2 A
10	7,5 A	13,0 A

Disconnect the electrical power supply from the compressor before opening the electrical cabinet.

The setting of the thermal relay **1 must not** differ from all indicated in the table above. If the thermal relay should trip, check the input, the voltage on the line terminals L1+L2+L3 while the compressor is running and the power connections inside the electrical control panel and the motor terminal board.

USEFUL TIPS FOR CORRECT COMPRESSOR PERFORMANCE

For the correct operational performance of the machine under full continuous load at the maximum working pressure, ensure that the temperature of the work area in a closed room does not exceed +40°C.

It is advisable to use the compressor with a maximum service of 80% in one hour under full load in order to ensure the correct efficiency of the product in time

5.5 Stopping the compressor

Press the **EMERGENCY/STOP** push button and the compressor will stop immediately.

Note! By disconnecting the power supply from the external switch the compressor is completely without power.

6 Compressor maintenance



In order to use the compressor in complete safety read the safety standards given in section 1.3. before reading this section.

6.1 Instructions relative to inspections and maintenance jobs.

The table that follows summarises the periodic and preventative maintenance jobs required to keep the compressor in an efficient operational state in time.

A brief description of the running hours after which the type of maintenance job is required.



Before performing any jobs ensure that:

- The main line switch is turned off (position “0”)
- the emergency switch is pressed in a safe position
- The compressor is disconnected from the compressed air system
- All the pressure has been released from the compressor and internal pneumatic circuit.

Weekly: it is advisable to inspect the compressor, paying special attention to oil leaks and scale due to settled dust and oil.

Note! If the compressor is used for more than 3000 hours/year or it is used in dusty environments, you need to carry out the following quite frequently:

Interval (hours)	Jobs to be performed	See section
500	Change the oil	6.1.1
	Replace the oil filter cartridge	6.1.2
	Tighten screws, cables, remote switches K1-K2-K3	
	Tighten the belt	6.1.5
	Check hydraulic seals	
2500÷3000	Change the oil	6.1.1
	Replace the oil filter cartridge	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Clean the oil radiator	6.1.8
5000÷6000	Change the oil	6.1.1
	Replace the oil filter cartridge	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Tighten the belt	6.1.5
	Check the hydraulic seals	
	Overhaul the in-take valve	
	Clean the oil radiator	6.1.8
8000÷9000	Test the motor thermal protection switch	
	Change the oil	6.1.1
	Replace the oil filter	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Replace the belt	6.1.6
	Check the hydraulic seals	
11000÷12000	Clean the oil radiator	6.1.8
	Change the oil	6.1.1
	Replace the oil filter	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Tighten the belt	6.1.5
	Check the hydraulic seals	
	Check flexible hoses and replace if necessary	
	Overhaul the oil separator flange	
	Lubricate the minimum pressure valve	
	Overhaul the in-take valve	
	Clean the oil radiator	6.1.8
	Replace the Rilsan hoses 6x4 and 8x10	
	Replace screw oil guard	
	Replace the motor bearings	6.1.9

Interval (hours)	Jobs to be performed	See section
14000÷15000	Change the oil	6.1.1
	Replace the oil filter	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Check cables	
	Tighten the belt	6.1.5
	Check the hydraulic seals	
	Replace OR on delivery flange	
	Tighten screws	
	Check cooling fans	
	Clean the oil radiator	6.1.8
	Clean the compressor	
17000÷18000	Change the oil	6.1.1
	Replace the oil filter	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Replace the belt	6.1.6
	Check the hydraulic seals	
	Overhaul in-take valve	
	Clean the oil radiator	6.1.8
20000÷21000	Change the oil	6.1.1
	Replace the oil filter	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Check the hydraulic seals	
	Replace bearings and screw oil guard	
	Replace the motor bearings	6.1.9
	Check the electric fan	
23000÷24000	Change the oil	6.1.1
	Replace the oil filter	6.1.2
	Replace the oil separator filter	6.1.3
	Replace the air filter	6.1.4
	Tighten screws, cables, remote switches K1-K2-K3	
	Tighten the belt	6.1.5
	Replace flexible hoses	
	Clean oil radiator	6.1.8

The above described maintenance schedule has been planned bearing in mind all the installation parameters and recommended use of the **Manufacturer**.

The **Manufacturer** advises the customer to keep a record of all maintenance jobs performed on the compressor, see **Section 7 – Drawings and diagrams**.

6.1.1 Changing the oil

Read all the information provided in **Section 6.1** before proceeding with any maintenance jobs. Change the oil following the initial **500 hours** of use and then every **2500/300 hours** and in event once a year. **If the compressor is only used for a few hours a day it is advisable to change the oil every 6 months.**



When you open tap 2, oil starts to drain from the screw unit, therefore you need to have a pipe and container ready to collect the oil.

Unscrew the red cap **1** situated at the base of the screw unit.

Screw an attachment with tail piece (supplied together with the compressor).

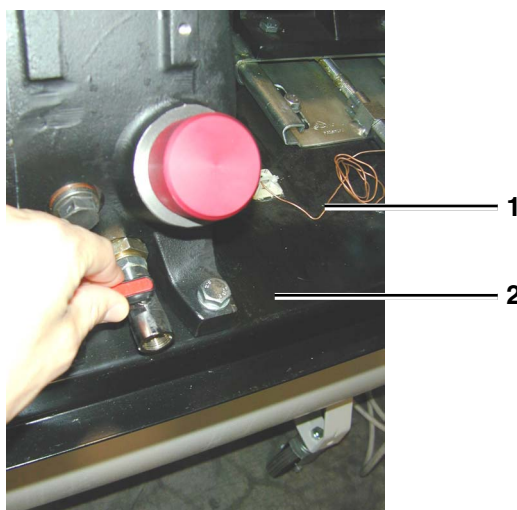
Open tap **2**.

Once emptied, shut-off tap **2** and remove the attachment with tail piece.

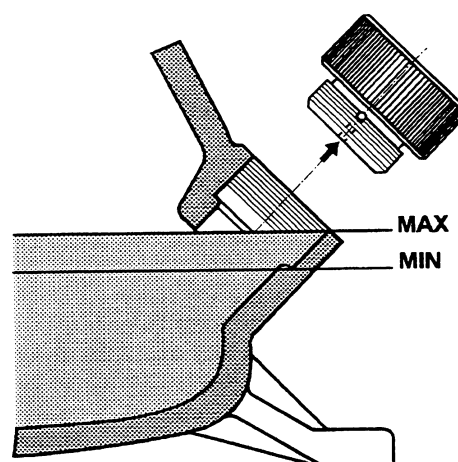
Fill-up with oil to the rim of the union **4**, then screw cap **1** back in place.

After you have replaced the oil and the oil filter, run the compressor for roughly 5 minutes; stop the compressor and check the oil level and top-up if necessary.

Check the oil level each month and check that it is up to the rim of the port **4**.



4



Never mix different types of oil, therefore always ensure that the circuit is completely empty before filling-up with oil. Each time the oil is changed the filter is also to be replaced.

6.1.2 Replacing the oil filter cartridge

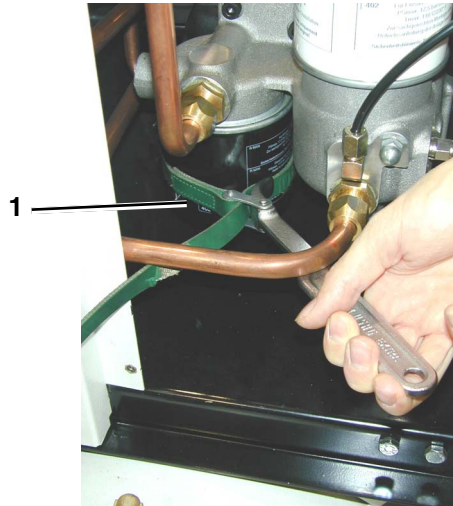
Read all indicated in **Section 6.1** before starting any maintenance jobs.

Replace the oil filter cartridge after the first **500 hours** of use then every **2500/3000 hours** and in any event each time the oil is changed.

Disassemble filter cartridge **1**, using a chain spanner and replace with a new one.

Lubricate the sealing gasket before screwing the filter cartridge tight.

Manually tighten the new filter cartridge.



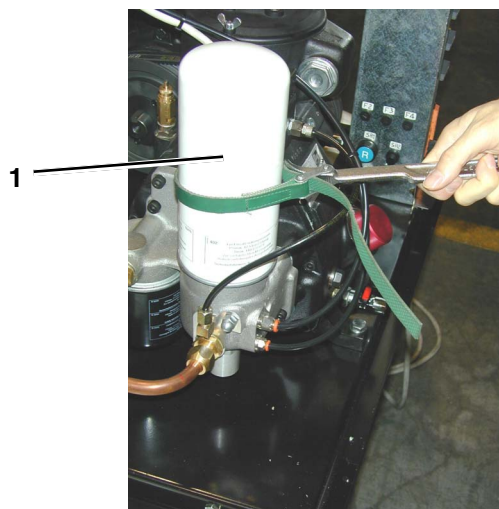
6.1.3 Replacing the filter cartridge of the oil separator

Read all indicated in **Section 6.1** before starting any maintenance jobs.

Disassemble filter cartridge **1**, using a chain spanner and replace with a new one.

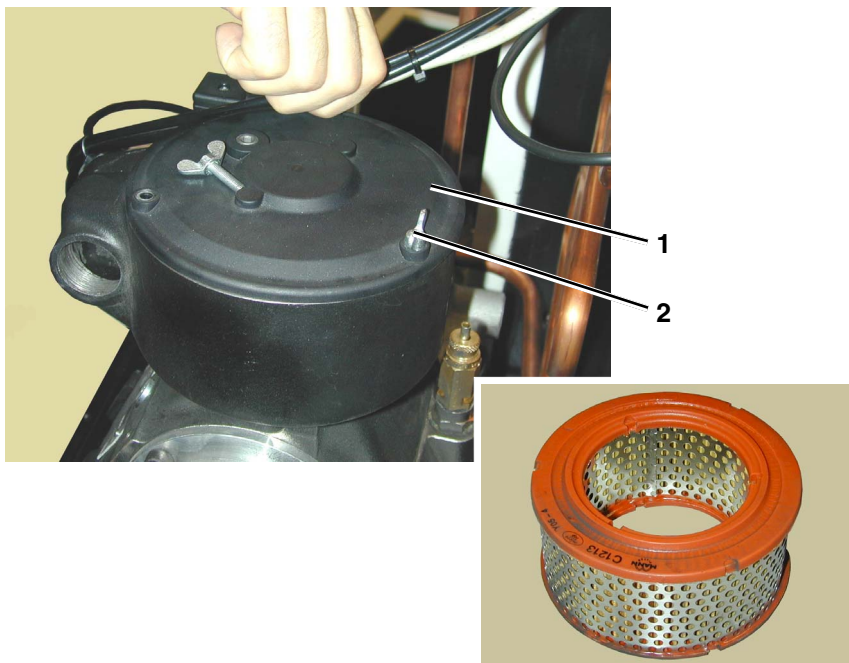
Lubricate the sealing gasket before screwing the filter cartridge tight.

Manually tighten the new filter cartridge.



6.1.4 Replacing the air filter cartridge

Read all indicated in **Section 6.1** before starting any maintenance jobs.
Remove the screws **2** and also the cover **1**.
Replace the air filter cartridge.

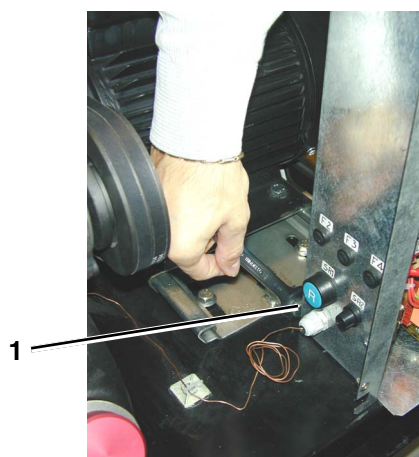
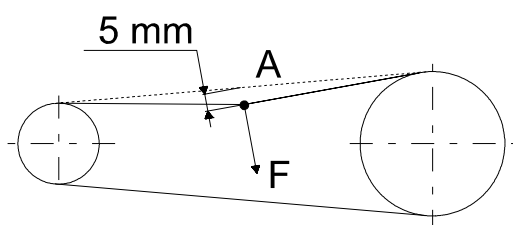


6.1.5 Tightening the belt

Read all indicated in **Section 6.1** before starting any maintenance jobs.
Open the safety guard **2** to access the belt.
Every **500 hours** of use it is advisable to check and maybe tighten the belt if necessary.
Using a dynamo meter apply a perpendicular force in point **A** of between 25N and 35N, the belt must give by roughly 5mm.
Turn nut **1** of the slide to tension the belt.

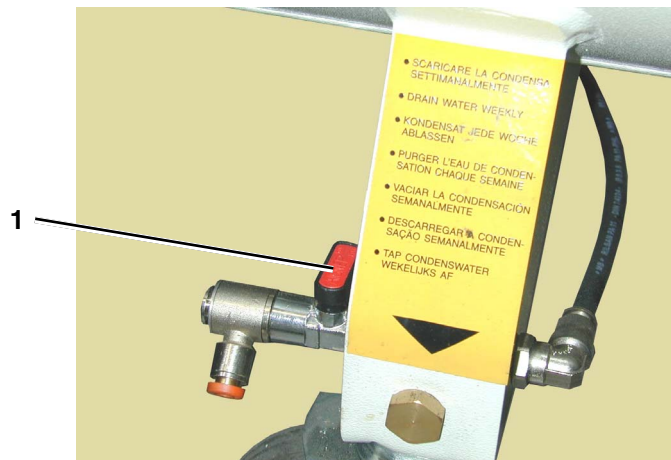
6.1.6 Replacing the belt

Read all indicated in **Section 6.1** before starting any maintenance jobs.
Open the safety guard **2** to access the belt.
Turn nut **1** of the slide to slacken the belt.
Slide the belt out, replace it with a new one and tighten as described in the previous section.



6.1.7 Draining the condensate

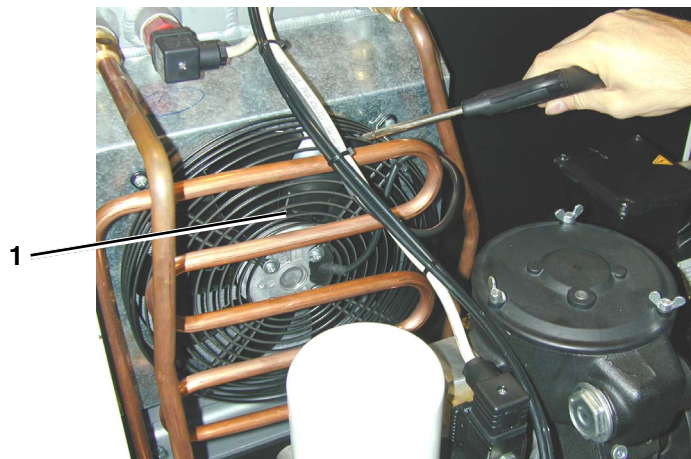
Read all indicated in **Section 6.1** before starting any maintenance jobs.
 Drain the condensate from the air tank at least once a month by opening tap **1**.



The condensate drained is considered as polluting mix that must not be thrown away outdoors. It is advisable to use special water/oil separators for its disposal.

6.1.8 Cleaning the oil radiator

Read all indicated in **Section 6.1** before starting any maintenance jobs.
 You are recommended to clean the radiator **1** once a month to remove any impurities by blowing air through from the inner part.
 Blow compressed air through the radiator, from inside outwards, making sure that no dirt settles inside the compressor.



6.1.9 Maintenance the electric motor

The bearings of the electric motor are already lubricated and are maintenance free.
 In normal surrounding conditions (ambient temperature up to 30°C) replace the motor bearings every 12000 hours of use. In more severe surrounding conditions (ambient temperature higher than 30°C) replace the motor bearings every 8000 hours of use.
 The bearings are to be replaced in any event every 4 years at the most.

Warning! Before replacing the motor bearings, contact our customer service department, as established by the maintenance schedule.

6.2 Diagnosing the alarm status/inconveniences-faults



Before doing any job on the compressor ensure that:

- The main ON/OFF switch is turned Off (position “0”)
- the emergency switch is pressed in a safe position
- The compressor is shut-off from the compressed air system
- The compressor and the internal pneumatic circuit are completely de-pressurised

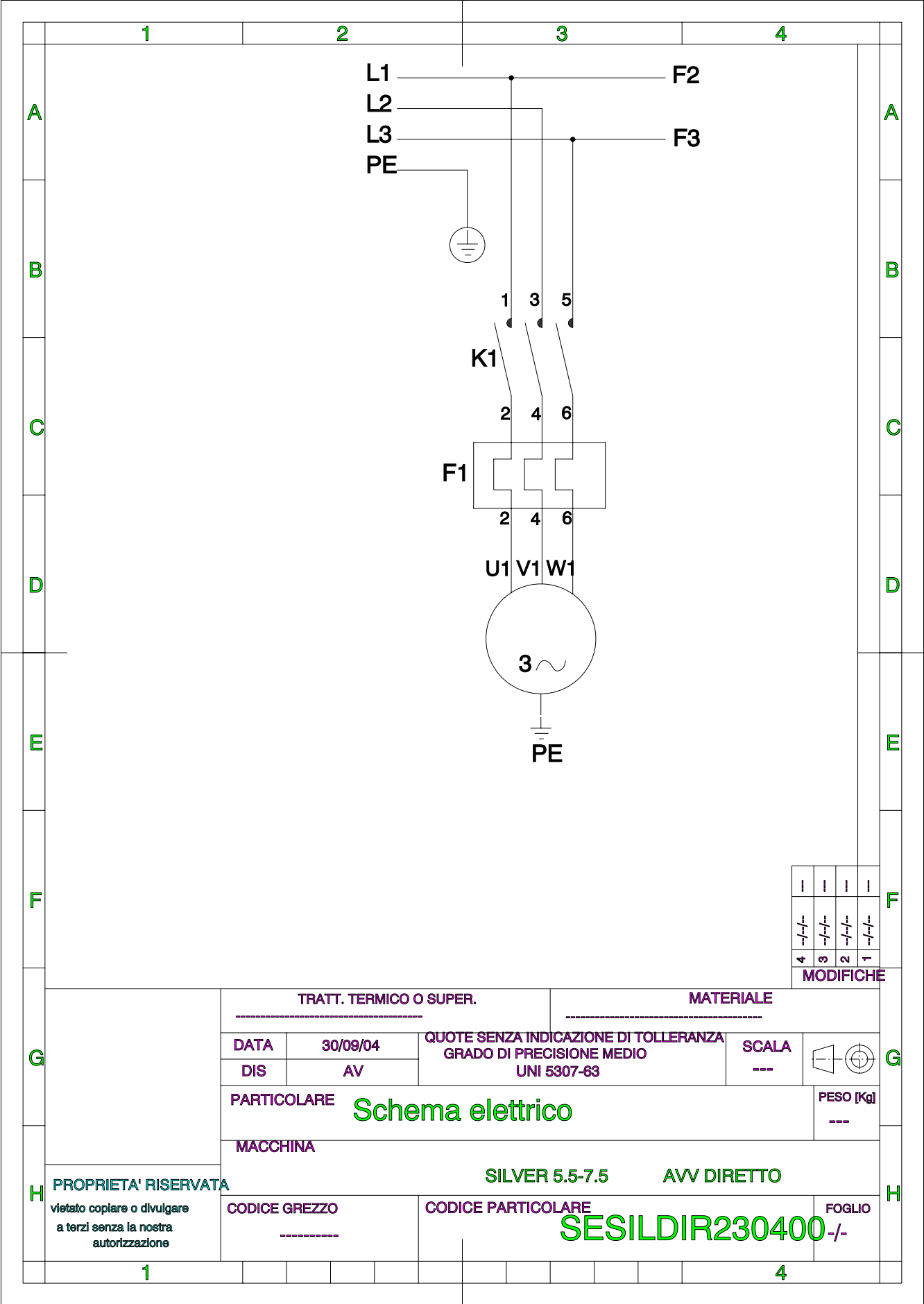
If you are unable to rectify the anomaly encountered on your compressor contact your nearest authorised service centre.

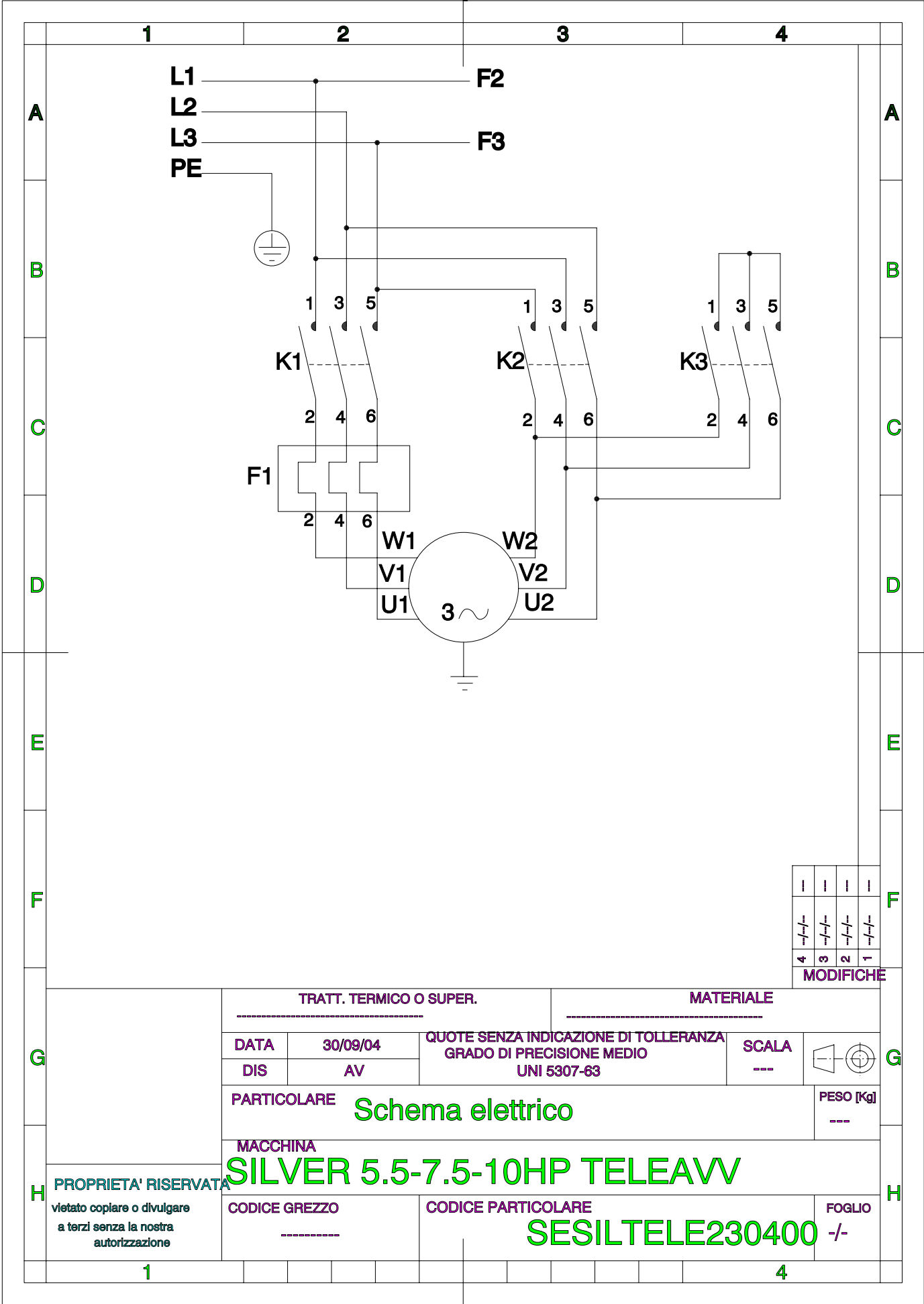
COMPRESSOR

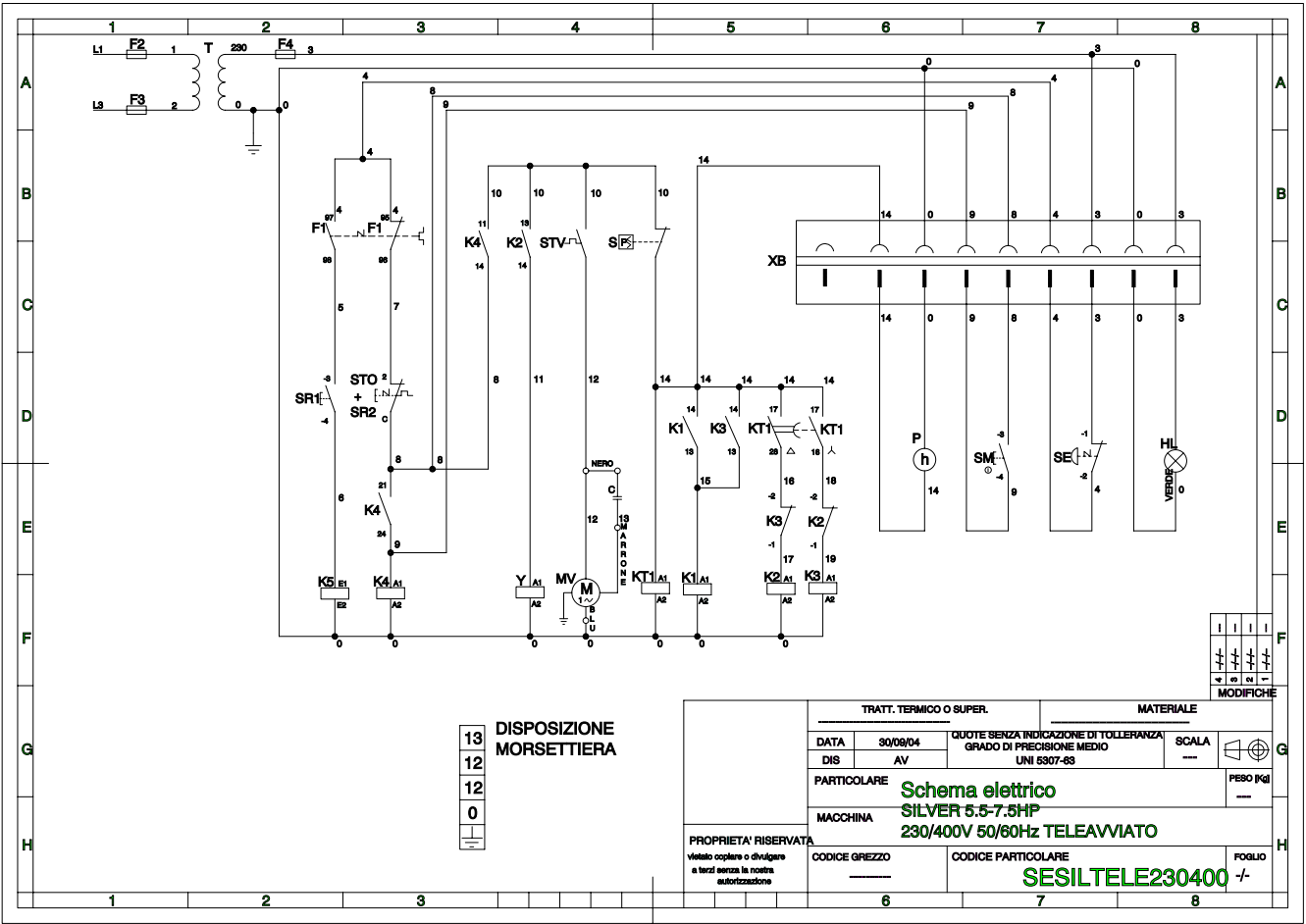
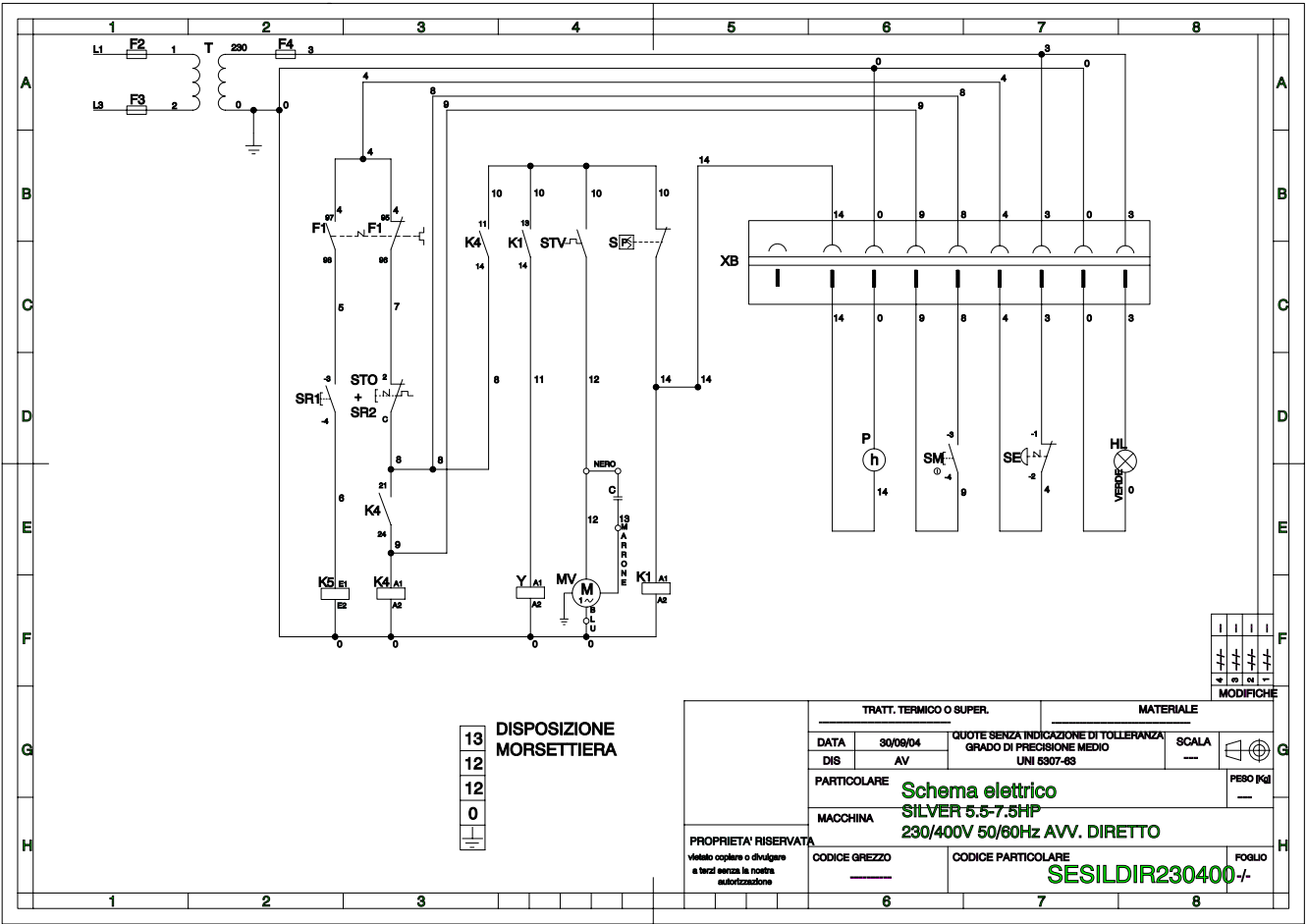
Anomaly	Cause	Solution
Machine stoppage triggered by oil thermostat.	Excessive temperature of air/oil mix at screw outlet (105°).	Check the oil level, check if radiator is clean, check if dust-removal pre-filter is clean. To start the machine again, disconnect from the mains, wait for the temperature to drop by roughly 20°C, open the side panel of the compressor and press the reset key on the cover of the electric system (see button 3 sect. 5.2.2).
Machine stopped-motor thermal protection switch tripped.	The thermal protection switch of the motor has tripped.	Check if the electrical powers supply is correct, check if the three power supply phases are more or less at the same value. Check if the cables are firmly fitted to the terminal board, check if the electrical cables have melted. Check if the fan in-take grid is clean or obstructed (paper, leaves, rags). To start the machine again, disconnect the power supply, open the front panel of the compressor and press the reset key on the electrical cabinet (see push button 2 Section 5.2.2).
The compressor is running but fails to load.	The in-take valve fails to open.	Check if the operational pressure switch is working correctly, check if the solenoid valve fitted on the in-take regulator is working correctly (solenoid valve closed).

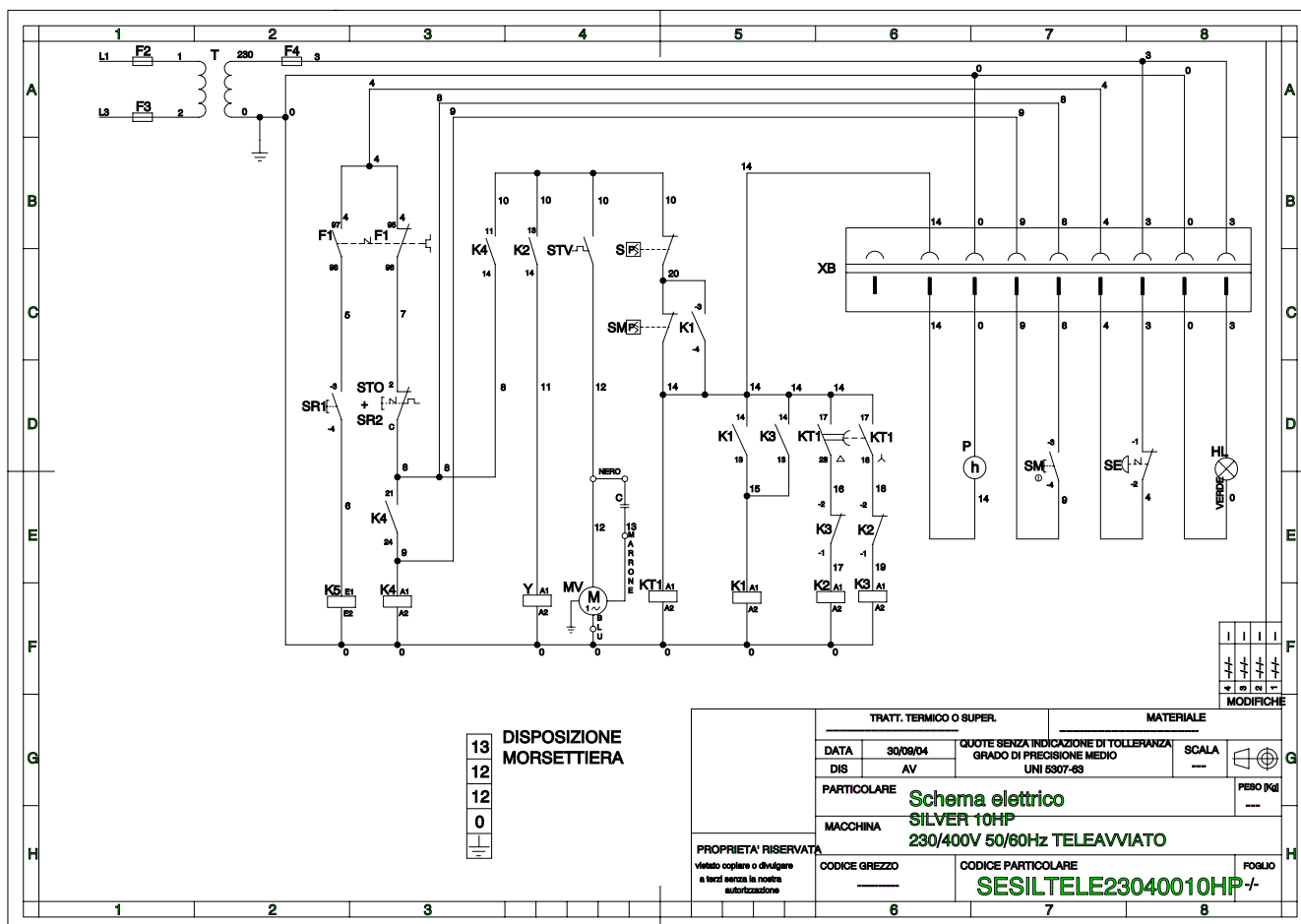
7 Drawings and diagrams

7.1 Wiring diagrams



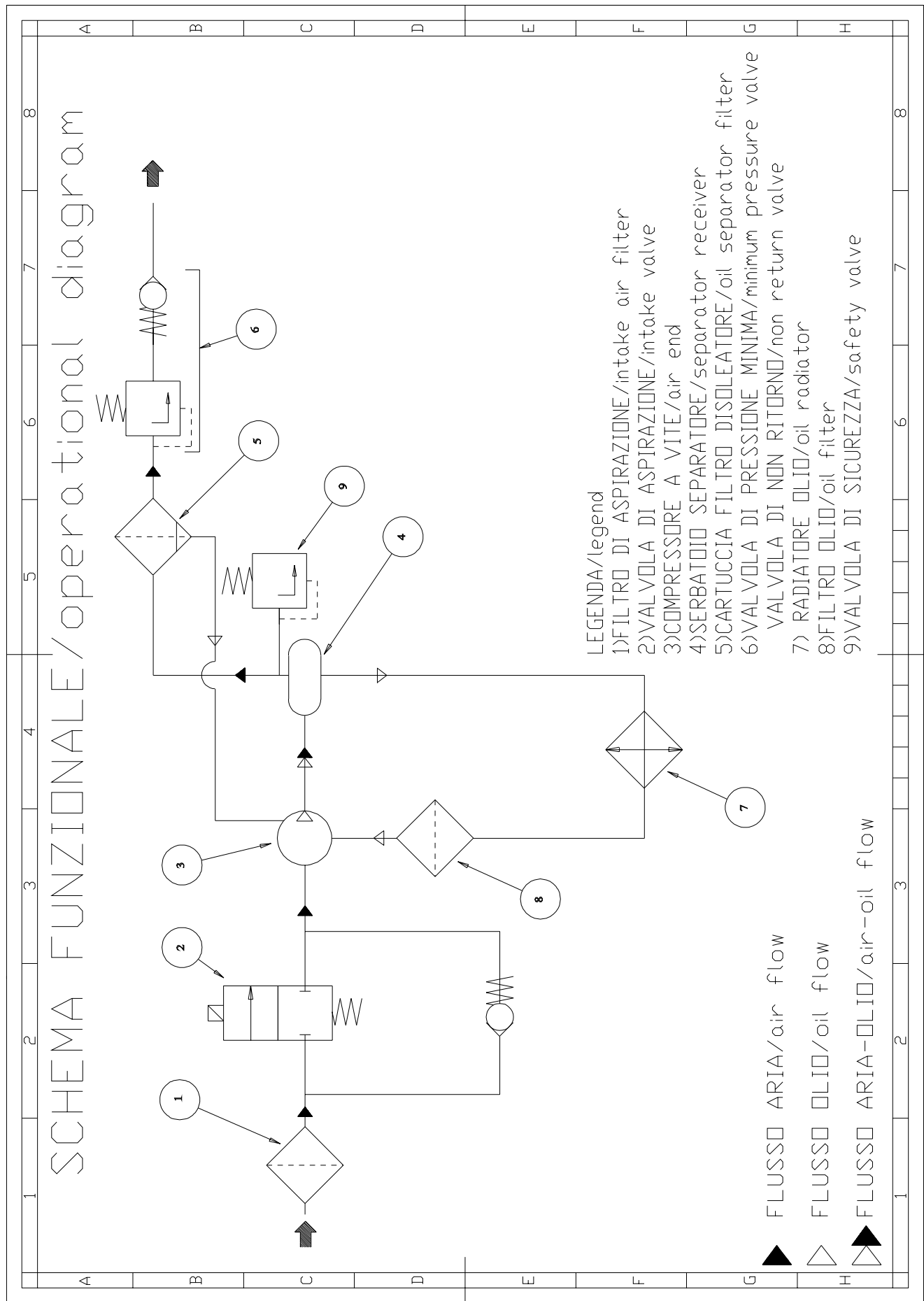




**KEY:**

- F2-F3: FUSES 5x20 1A(T)
 F4: FUSE 5x20 1A(F)
 HL: LINE PRESSURE LAMP
 F1: MOTOR THERMAL TRIP SWITCH
 SR1: RESET BUTTON OF MOTOR THERMAL TRIP SWITCH
 T: TRANSFORMER
 STO+SR2: SCREW OIL TEMPERATURE THERMOSTAT + RESET
 SM: COMPRESSOR START BUTTON
 SE: EMERGENCY BUTTON
 STV: RADIATOR FAN THERMOSTAT
 MV: FAN MOTOR
 C: FAN MOTOR CONDENSER
 K1: MOTOR STARTER LINE CONTACT MAKER
 K2: MOTOR DELTA CONTACT MAKER
 K3: MOTOR STAR CONTACT MAKER
 K4: AUXILIARY RELAY
 K5: MOTOR THERMAL TRIP SWITCH RESET RELAY
 KT1: STAR/DELTA TIMER
 P: HOUR METER
 S: PRESSURE SWITCH
 SM: MINIMUM PRESSURE SWITCH
 Y: SOLENOID VALVE
 XB: MALE/FEMALE CONNECTOR

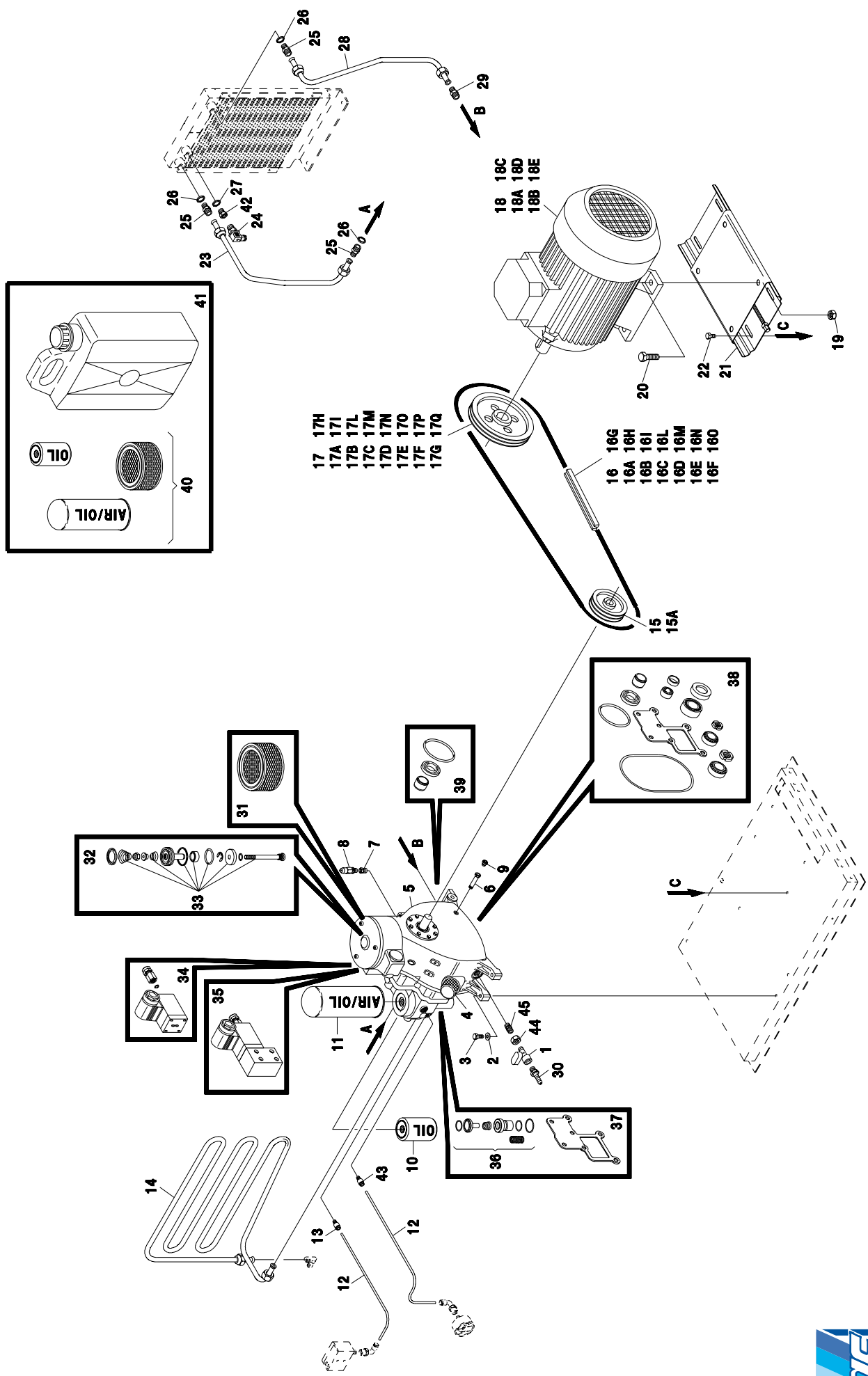
7.2 Pneumatic diagrams





SILVER 5,5	8-10 BAR	NK 40	1/2
SILVER 7,5	8-10-13 BAR	NK 40	1/2
SILVER 10	8-10-13 BAR	NK 40	1/2

DESCRIPTION DESCRIZIONE				VALID FROM 18/01/2005 - VALIDO DAL 18/01/2005 (REV.01.A.05)			
REF. RIF.	CODE CODICE	QT QT	DESCRIPTION DESCRIZIONE	REF. RIF.	CODE CODICE	QT QT	DESCRIPTION DESCRIZIONE
1	7130680000	1	Tap - Rubinetto a sfera	24	7564470000	1	Thermostat - Termostato
2	7030040000	3	Washer - Rondella	25	7081311150	3	Joint - Nipplo
3	7011670000	3	Screw - Vite TE 10x40	26	7030400000	4	Washer - Rondella 1/2" ALL
4	7098090000	1	Oil plug - Tappo olio	27	7030400000	1	Washer - Rondella 1/2" ALL
5	7423020000	1	Air end - Vite completa NK40	28	7238200000	1	Hose - Tubo in rame
6	7085990000	1	Joint - Riduzione per termostato	29	7085440000	1	Joint - Nipplo
7	7085530000	1	Joint - Raccordo	30	7083940000	1	Joint - Raccordo a resca
8	7192000000	1	Safety valve - Valvola di sicurezza	31	7211360000	1	Air filter cartridge - Cartuccia filtro aria
9	7500560000	1	Stretch eliminator - Pressacavo	32	7195760000	1	Suction valve (See kit assembling table) - Valvola di aspirazione (Vedi tavola assemblaggio kit)
10	7211121100	1	Oil filter - Filtro olio	33	7196570000	1	Suction valve kit (See kit assembling table) - Kit valvola di aspirazione (Vedi tavola assemblaggio kit)
11	7211960000	1	Separator filter - Filtro disoleatore	34	7194390010	1	Solenoid valve coil - Bobina elettrovalvola
12	7230010000	1	Rilsan hose - Tubo Rilsan	35	7194390000	1	Solenoid valve - Elettrovalvola
13	7084220000	1	Joint - Raccordo	36	7196310000	1	Minimum pressure valve kit (See kit assembling table) - Kit valvola di minima pressione (Vedi tavola assemblaggio kit)
14	7238150000	1	Hose - Tubo in rame	37	7196240000	1	Minimum pressure valve kit+gasket (See kit assembling table) - Kit valvola minima pressione-guarnizione (Vedi tavola assemblaggio kit)
15	7407980000	1	Pulley - Puleggia (HP 5.5 - 7.5)	38	7060540000	1	Oil seal kit-bearings kit (See kit assembling table) - Kit paraolio-kit cuscinetti (Vedi tavola assemblaggio kit)
15A	7407910000	1	Pulley - Puleggia (HP10)	39	7071320000	1	Oil seal kit (See kit assembling table) - Kit paraolio (Vedi tavola assemblaggio kit)
16	7371520000	1	Belt - Cinghia SPZ-X 722 (HP 5.5 10bar 50Hz)	40	4094060000	1	Filters kit - Kit filtri
16A	7371510000	1	Belt - Cinghia SPZ-X 812 (HP 7,5 10bar 50Hz)	41	4093960000	1	Maintenance kit - Kit manutenzione
16B	7371500000	2	Belt - Cinghia SPZ-X 900 (HP 10 10bar 50Hz)	42	7085990000	1	Joint - Raccordo
16C		1	Belt - Cinghia SPZ-X772 (HP 5.5 8bar 50Hz)	43	7084270000	1	Joint - Raccordo
16D		1	Belt - Cinghia SPZ-X850 (HP 7.5 8bar 60Hz)	44	7023050000	1	Blocking nut - Controdado
16E	7371090000	1	Belt - Cinghia SPZ-X750 (HP 7.5 13bar 50Hz)	45	7085540000	1	Joint - Riduzione
16F	7371010000	2	Belt - Cinghia SPZ-X950 (HP 10 8bar 50Hz)				
16G		2	Belt - Cinghia SPZ-X825 (HP 10 13bar 50Hz - HP10 10bar 60Hz)				
16H	7371060000	1	Belt - Cinghia SPZ-X737 (HP 5.5 8bar 60Hz)				
16I		1	Belt - Cinghia SPZ-X687 (HP 5.5 10bar 60Hz)				
16L		1	Belt - Cinghia SPZ-X800 (HP 7.5 8bar 60Hz)				
16M	7340610000	1	Belt - Cinghia SPZ-X762 (HP 7.5 10bar 60Hz)				
16N		1	Belt - Cinghia SPZ-X720 (HP 7.5 13bar 60Hz)				
16O		2	Belt - Cinghia SPZ-X772 (HP 10 13bar 60Hz)				
17	7408550000	1	Pulley - Puleggia (HP 5.5 10bar 50Hz)				
17A	7408230000	1	Pulley - Puleggia (HP 7.5 10bar 50Hz)				
17B	7409960000	1	Pulley - Puleggia (HP 10 10bar 50Hz)				
17C	7407900000	1	Pulley - Puleggia (HP 5.5 8bar 50Hz)				
17D	7408440000	1	Pulley - Puleggia (HP 7.5 8bar 50Hz)				
17E	7409140000	1	Pulley - Puleggia (HP 7.5 13bar 50Hz)				
17F	7407500000	1	Pulley - Puleggia (HP 10 8bar 50Hz)				
17G		1	Pulley - Puleggia (HP 10 13bar 50Hz)				
17H	7407820000	1	Pulley - Puleggia (HP 5.5 8bar 60Hz)				
17I	7407800000	1	Pulley - Puleggia (HP 5.5 10bar 60Hz)				
17L	7408230000	1	Pulley - Puleggia (HP 7.5 8bar 60Hz)				
17M	7407790000	1	Pulley - Puleggia (HP 7.5 10bar 60Hz)				
17N	7408550000	1	Pulley - Puleggia (HP 7.5 13bar 60Hz)				
17O		1	Pulley - Puleggia (HP 10 8bar 60Hz)				
17P		1	Pulley - Puleggia (HP 10 10bar 60Hz)				
17Q		1	Pulley - Puleggia (HP 10 13bar 60Hz)				
18	7380850000	1	Electric motor compressor - Motore elettrico compressore 380V±415V 50Hz (HP 5.5)				
18A	7380850000	1	Electric motor compressor - Motore elettrico compressore 380V±415V 50Hz (HP 7.5)				
18B	7380200000	1	Electric motor compressor - Motore elettrico compressore 380V±415V 50Hz (HP 10)				
18C		1	Electric motor compressor - Motore elettrico compressore 208V±240V 50Hz (HP 5.5)				
18D		1	Electric motor compressor - Motore elettrico compressore 208V±240V 50Hz (HP 7.5)				
18E		1	Electric motor compressor - Motore elettrico compressore 208V±240V 50Hz (HP 10)				
19	7020250000	4	Nut - Dado				
20	7011160000	4	Screw - Vite				
21	7457030000	1	Guide - Slitta tenditrice				
22	7011410000	4	Screw - Vite TE M10x20 C/ROUND.				
23	7238210000	1	Hose - Tubo in rame				





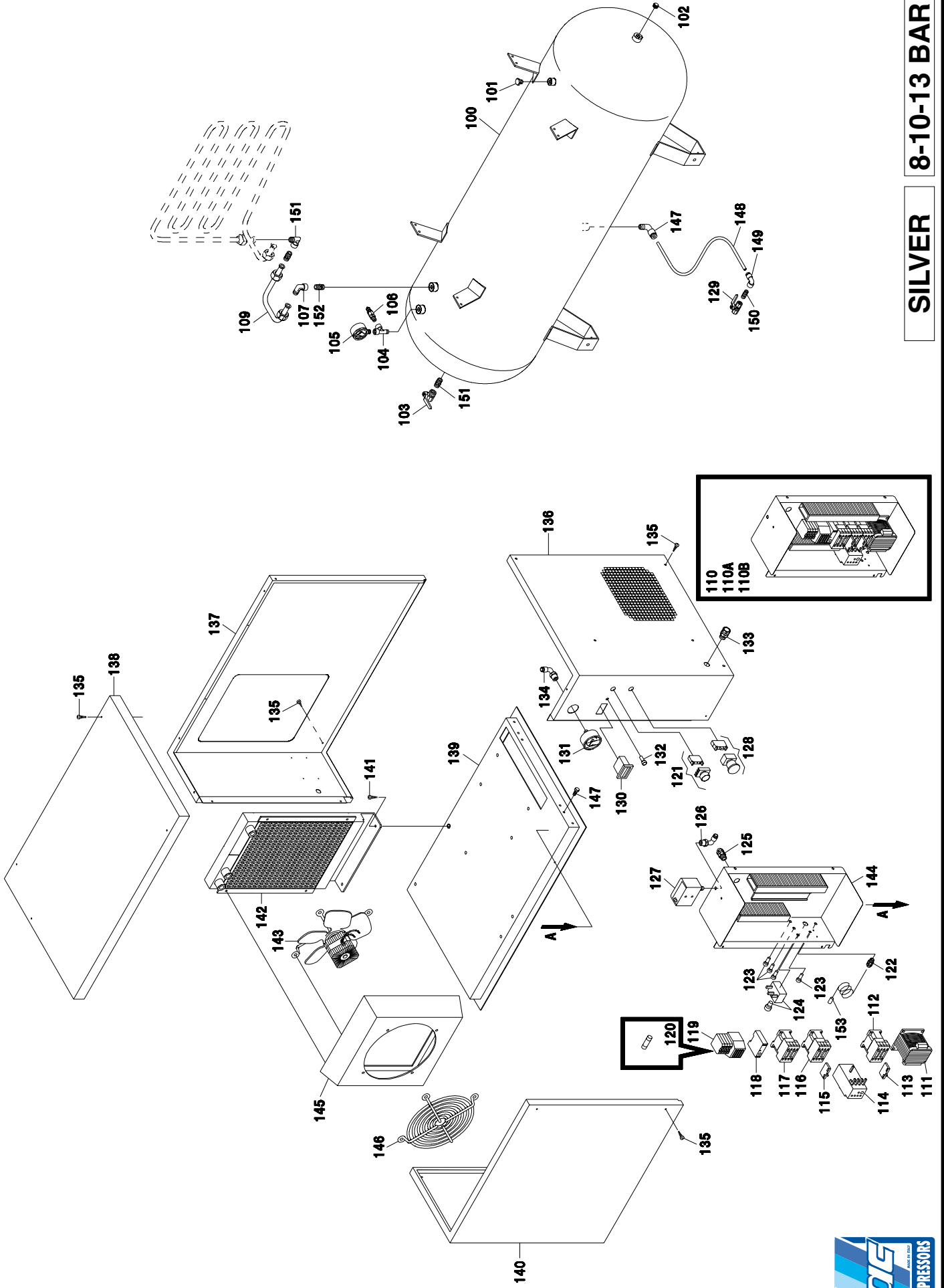
SILVER 5,58-10 BAR2/2

SILVER 7,58-10-13 BAR2/2

SILVER 108-10-13 BAR2/2

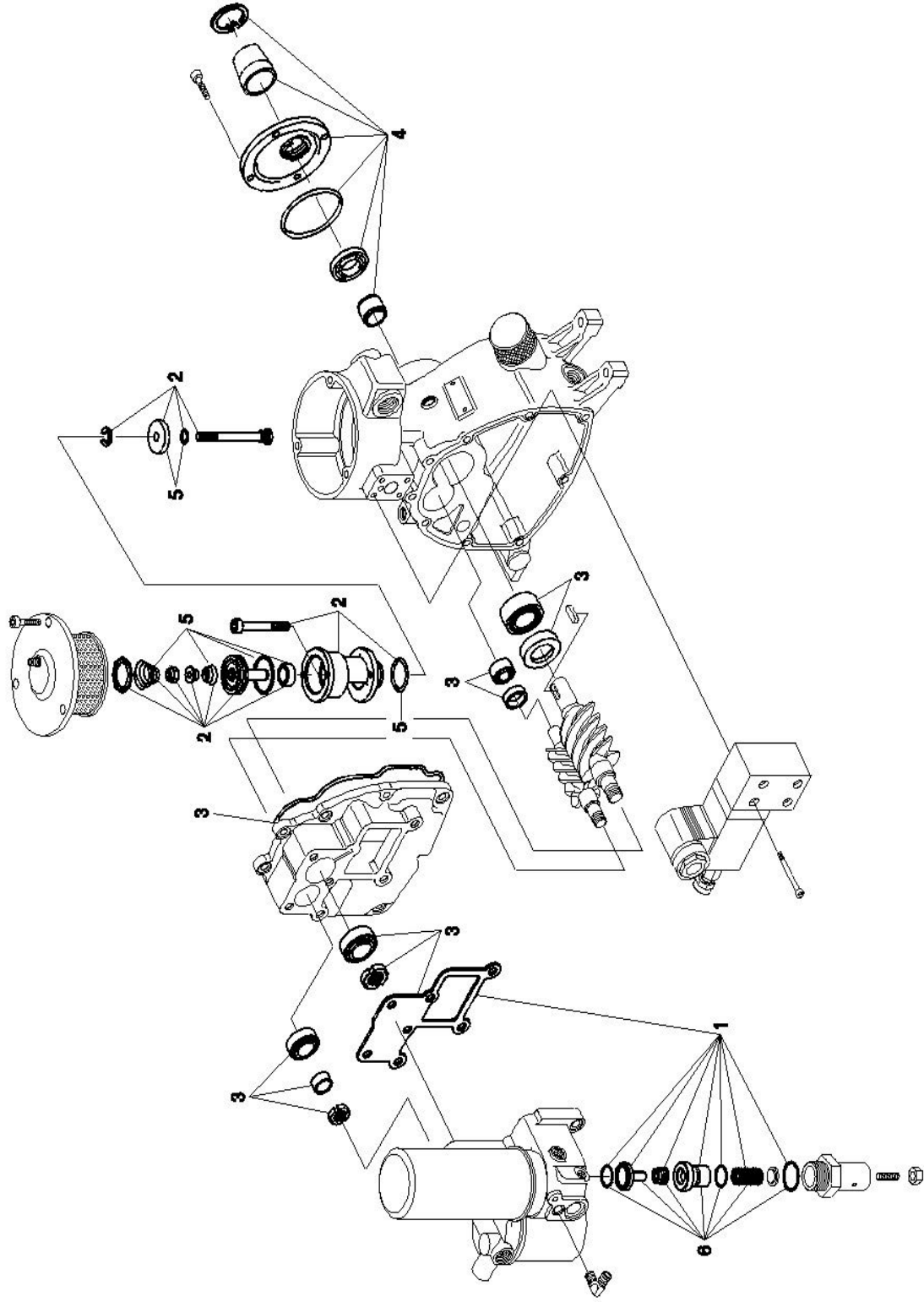
REF. RIF.	CODE CODICE	QT QT	DESCRIPTION DESCRIZIONE	REF. RIF.	CODE CODICE	QT QT	DESCRIPTION DESCRIZIONE
100	5150550008	1	Tank - Serbatoio 200lt				
101	7090080000	1	Plug - Tappo				
102	7090030000	1	Plug - Tappo				
103	7130170000	1	Tap - Rubinetto a sfera 1/4"				
104	7082050000	1	Joint - Raccordo "T"				
105	7110180000	1	Pressure gauge - Manometro				
106	7192090000	1	Safety valve - Valvola di sicurezza				
107	7080160000	1	Joint - Raccordo				
108	7080160000	1	Joint - Raccordo				
109	7230480000	1	Hose - Tubo In rame				
110	7414090000	1	Electric board - Apparecchiatura elettrica (HP 5.5)				
110A	7414100000	1	Electric board - Apparecchiatura elettrica (HP 7.5)				
110B	7414110000	1	Electric board - Apparecchiatura elettrica (HP 10)				
111	7564340000	1	Transformer - Trasformatore				
112	7435510000	1	Contactor - Contattore compressore K1				
113	7432530000	1	Contactor - Contatto ausiliario				
114		1	Bobbin - Bobina riarmo K5				
115	7432530000	1	Contactor - Contatto ausiliario				
116	7432550000	1	Contactor - Contattore compressore K2				
117	7433510000	1	Contactor - Contattore compressore K3				
118	7432700000	1	Timer - Temporizzatore KT1				
119	7550180000	1	Relay - Relè ausiliario K4				
120	7432720000	1	Fuse - Fusibile F2-F3				
121	7433530000	1	Start button - Pulsante Start				
122	7500560000	1	Stretch eliminator - Pressacavo				
123	7301330000	1	Pushbutton - Pulsante START				
124	7300340000	1	Pushbutton - Pulsante RESET				
125	7500560000	1	Stretch eliminator - Pressacavo				
126	7084240000	1	Joint - Raccordo "L"				
127	7250960000	1	Pressure switch - Pressostato				
128	7300320000	1	Emergency push-button - Pulsante di emergenza				
129	7130170000	1	Tap - Rubinetto a sfera				
130	7563510000	1	Hour meter - Contatore				
131	7110400000	1	Pressure gauge - Manometro				
132	7433410000	1	Green warning light - Spha verde				
133	7500650000	1	Stretch eliminator - Pressacavo				
134	7080240000	1	Joint - Raccordo a "L"				
135	7014450000	18	Screw - Vite M5x50				
136	5168020008	1	Side panel - Pannello laterale				
137	5168030008	1	Rear panel - Pannello posteriore				
138	5168040008	1	Upper panel - Pannello superiore				
139	5168000008	1	Base - Base				
140	5168010008	1	Front panel - Pannello frontale				
141	7011410000	2	Screw - Vite				
142	7517510000	1	Radiator - Radiatore				
143	7194330000	1	Electrical fan - Ventilatore				
144	7514030000	1	Electric box - Cassetta elettrica				
145	7514040000	1	Conveyor - Convogliatore				
146	7194430010	1	Grid - Griglia per ventola				
147	7082820000	1	Joint - Raccordo				
148	7230020000	1	Rilsan hose - Tubo Rilsan				
149	7082830000	1	Joint - Raccordo				
150	7081140000	1	Joint - Raccordo				
151	7081170000	2	Joint - Nipplo 1/2				
152	7085690000	1	Joint - Rilezione 1/2" MF				
153	7564460000	1	Thermostat - Termostato olio vite NK40				

VALID FROM 18/01/2005 - VALIDO DAL 18/01/2005 (REV.01.A.05)



REF. RIF.	CODE CODICE	DESCRIPTION DESCRIZIONE
1	7196240000	Min. press.valve kit+gasket - Kit valvola di min. press+guarn.
2	7195760000	Suction valve - Valvola di aspirazione
3+4	7060540000	Oil seal kit+bearings kit - Kit paraolio+kit cuscinetti

REF. RIF.	CODE CODICE	DESCRIPTION DESCRIZIONE
4	7071320000	Oil seal kit - Kit paraolio
5	7196570000	Suction valve kit - Kit valvola di aspirazione
6	7196310000	Min. press. valve kit - Kit valvola di min. press. NK40-NK60



MAINTENANCE SCHEDULE

COMPRESSOR MODEL _____

SERIAL NO _____

[illegible]

