



GSE 5.5 HP - 7.5 HP - 10 HP

SILENT, ROTATING, ELECTRIC - SCREW COMPRESSORS

- USE AND MAINTENANCE MANUAL
- SAFETY WARNINGS



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1 GENERAL INFORMATION

The compressor must be used exclusively in compliance with the instructions given in this manual, which must be stored carefully in an easily accessible place, available to the operators for the whole working life of the machine. Always indicate the model and serial number in any requests.

1.1 Warnings and care



Read this user manual carefully before any operations. The non-compliance with the instructions contained herein could cause injury or damage. The machine was designed and built for the operations described herein. All other uses are forbidden.

Installation and maintenance must be carried out by qualified personnel. Always comply with the accident prevention regulations in force.



The manufacturer shall not be liable for any injuries or damage caused to the machine or other property due to the improper use of the compressor, non-compliance of the safety regulations described in this manual, negligence, even minor modifications or the use of non-original spare parts.



KEEP THIS MANUAL SAFE AND READILY AVAILABLE TO ALL THOSE WHO USE THE COMPRESSOR! WE RESERVE THE RIGHT TO MAKE ANY AND ALL NECESSARY CHANGES WITHOUT PRIOR NOTICE!

1.2 How to use the manual

Symbols have been used to highlight important situations. These symbols may be next to a text, a figure or at the head of the page. Pay the maximum attention to the meanings of the symbols: they are used to replace technical concepts or safety warnings, and should be considered as a "reminder." Consult the page below for any doubts over their meaning.



CAUTION

Highlights an important description concerning hazardous conditions, safety warnings, or very important information.

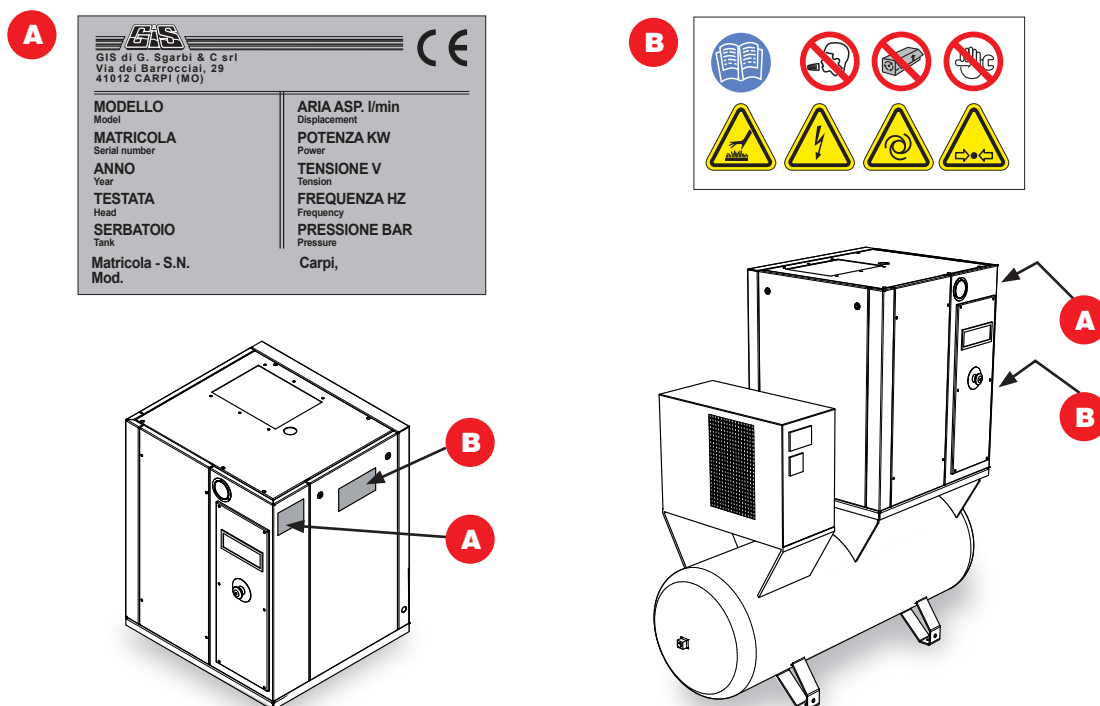


QUALIFIED PERSONNEL

All activities marked by this symbol must only be carried out by a specialized technician.

1.3 CE marking

The CE marking confirms the conformity of the compressor to health and safety requirements laid down in the European Directives listed in the **CE** declaration of conformity. The marking is shown on an adhesive silver polyester label with black printing, measuring L:90 mm H:80 mm.



1.4 Symbols

SYMBOL	MEANING	SYMBOL	MEANING
	Read the User Manual carefully		CAUTION: Hot surface.
	Do not inhale		CAUTION: Live machine.
	Dispose of responsibly		CAUTION: Moving parts.
	Do not do any work that requires authorised personnel		CAUTION: Pressure component or system. Discharge all compressed air.

1.5 Maintenance and servicing information

Our technical assistance service is at your full disposal for any information you may require to solve any problems. For clarifications, please contact our customer service or your local dealer. The best performance of our compressors is guaranteed only through the use of original spare parts. You are advised to strictly follow the instructions given in the maintenance chapter and use only original spare parts.

The use of non-original spare parts automatically annuls the warranty.

1.6 General safety warnings



ATTENTION

Here below some important instructions are given for using the compressor safely. Follow them carefully. The incorrect use and maintenance of the compressor may cause injury to the user.

1. Never place any parts of the body near the machine when in operation.
2. Never use the compressor with the guards removed. If maintenance requires the removal of any of the guards, prior to re-starting make sure that all the guards are correctly installed. It is strictly forbidden to disable any of the safety devices installed on the compressor.
3. Do not stick any objects or parts of the body into the protective grilles, to prevent physical injury or damage to the compressor.
4. Operate the compressor following the instructions given in this manual. Do not allow children or unauthorised personnel to use the compressor.
5. Always wear goggles or similar eye protection. Do not direct the air to any part of the body or towards other people.
6. Do not wear inappropriate clothing or accessories. If required, wear protective hair nets or hats.
7. The compressor must not be used by persons under the effect of alcohol, drugs or medicines which could cause drowsiness.
8. Before using the compressor, all staff must be familiar with all its functions and controls.
9. Never use the compressor for any purpose other than those described in this instruction manual.
10. Never direct the air jet towards persons or animals.
11. To avoid burns, do not touch the pipes, motor or any other hot parts.
12. Keep the work area around the compressor clean and well ventilated. Never use the compressor in an area near paints, solvents or combustible/explosive materials.
13. Check the outside of the compressor. If the power cable is damaged, repair or replace it. Contact a service centre if required.
14. Check the alignment of the moving parts, pipes, pressure gauges, pressure reducers, pneumatic connections and other important parts for the operation of the compressor. Check that all screws, bolts or covers are fixed firmly. All damaged parts must be repaired by a service centre.
15. Avoid accidental contact between the body and the metal parts of the compressor such as the pipes, tank or earthed parts. Never use the compressor in a wet or damp environment.
16. When carrying out any servicing operations, or to switch the compressor off when not in use, disconnect the compressor from the mains electricity and discharge the pressure from the tank.
17. Do not transport the compressor when connected to the electricity supply or with the tank under pressure. Before disconnecting the compressor from the mains, make sure the switch is in the OFF position.
18. Do not disconnect the plug by pulling the cable. Do not tread on or crush the cable. Keep away from heat, oil or sharp surfaces. Do not switch off the compressor by pulling the power cable. Use the red emergency button to switch off the compressor.
19. When using the compressor outdoors, use appropriate external extension cables.



20. Keep the ventilation grille clean. Clean the grille regularly when working in particularly dirty environments. Do not use solvents, thinners or substances containing hydrocarbons as these could damage the plastic parts. Use soapy water or other appropriate liquids.
21. Use the compressor at the voltage specified on the plate. Using the compressor at a different voltage could damage the electric motor.
22. If the compressor makes strange noises or vibrates excessively when working, check it and contact the service centre if required.
23. **Spare Parts**
Use only original spare parts available from our dealers. The use of non-original spare parts annuls the warranty and may cause the compressor to malfunction. Repairs should only be carried out at an authorised centre.
24. Use pipes, couplings and pneumatic tools which withstand pressures higher than those used.
25. Do not unscrew any of the tank connections without first checking that the tank is empty. It is strictly forbidden to drill holes, weld or modify the tank in any way.
26. It is strictly forbidden to modify the compressor in any way without authorisation. This could cause damage or personal injury. Consult an authorised service centre for any operations.
27. Do not work in closed environments or near live flames. Make sure the working environment is suitably ventilated. Protect the mouth and nose with a mask.

2 COMPRESSOR TECHNICAL DATA

MODEL	GSE 5.5 HP	GSE 7.5 HP	GSE 10 HP
Machine type	Oil-injected screw compressor		
Control	Belt transmission		
Screw type	SCA 7	SCA 7	SCA 8
Capacity (ISO 1217 annex B 1996)	0.49 m ³ /min - 17.3 cfm	0.69 m ³ /min - 24.4 cfm	1 m ³ /min - 35.31 cfm
Max working pressure	13 barg - 188.5 psig	13 barg - 188.5 psig	13 barg - 188.5 psig
Min. working pressure	5 barg - 72.5 psig	5 bar g - 72.5 psig	5 barg - 72.5 psig
Max. absorbed power**	4 kW - 5.5 HP	5.5 kW - 7.5 HP	7.5 kW - 10 HP
Max air/oil output temperature	105 °C - 221 °F	105 °C - 221 °F	105 °C - 221 °F
Max. room temperature	45 °C - 113 °F	45 °C - 113 °F	45 °C - 113 °F
Min. room temperature*	5 °C - 41 °F	5 °C - 41 °F	5 °C - 41 °F
Weight	140 Kg - 308.7 lb	150 Kg - 330.7 lb	157 Kg - 346 lb
Supply voltage	See the machine plate		
Max. absorbed current	7.9 A	10.5 A	13.6 A
Absorbed current at start-up	22.4 A	30 A	39 A
Electric motor degree of protection	IP 55	IP 55	IP 55
Insulation class	F	F	F
Service factor	S1	S1	S1
Amount of oil	4 liters	4 liters	4 liters
Female air output fitting	1/2" Gas	1/2" Gas	1/2" Gas
Max. fan flow rate	3350 m ³ /h	3350 m ³ /h	3350 m ³ /h
Oil residue in air	<3 ppm	<3 ppm	<3 ppm
Electric motor	MEC112	MEC132	MEC132
Noise level***	65	65	65

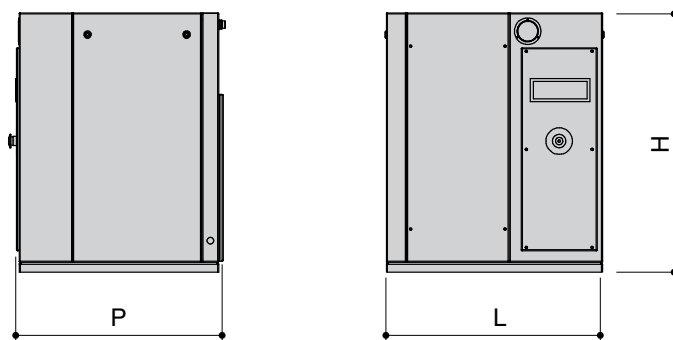
* When the room temperature is less than 5°C use an ISO VG 32 lubricant.

** Value measured with working pressure: 10 bar.

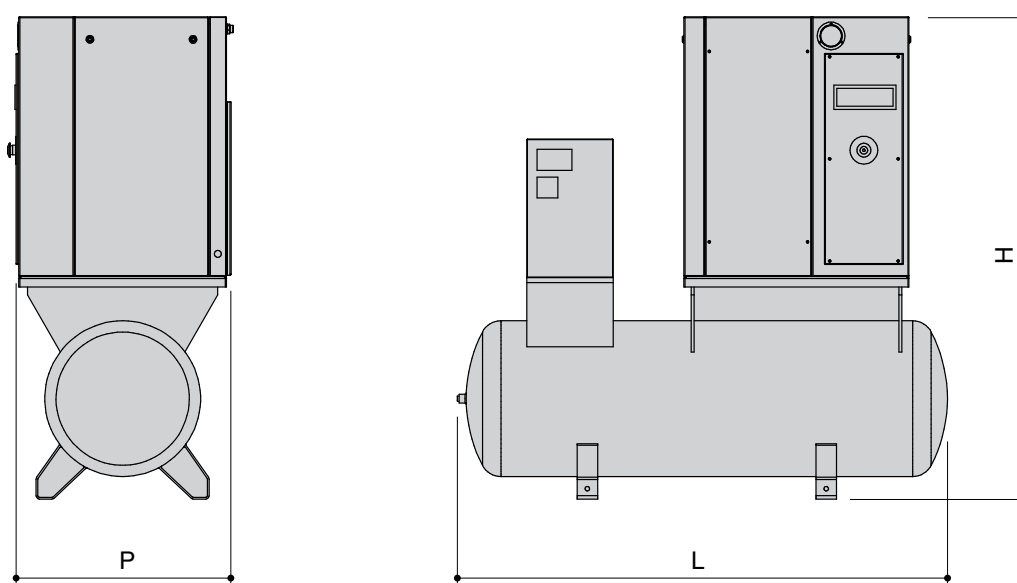
*** Noise level measured in free field at 1 metre distance ±3 dB(A) at maximum working pressure.

2.1 Overall dimensions

MODEL	P	L	H
GSE 5.5 - 7.5 - 10	600	650	875
GSE 5.5 - 7.5 - 10/300	600	1650	1390
GSE 10/500	600	1900	1510



GSE 5.5 - 7.5 - 10



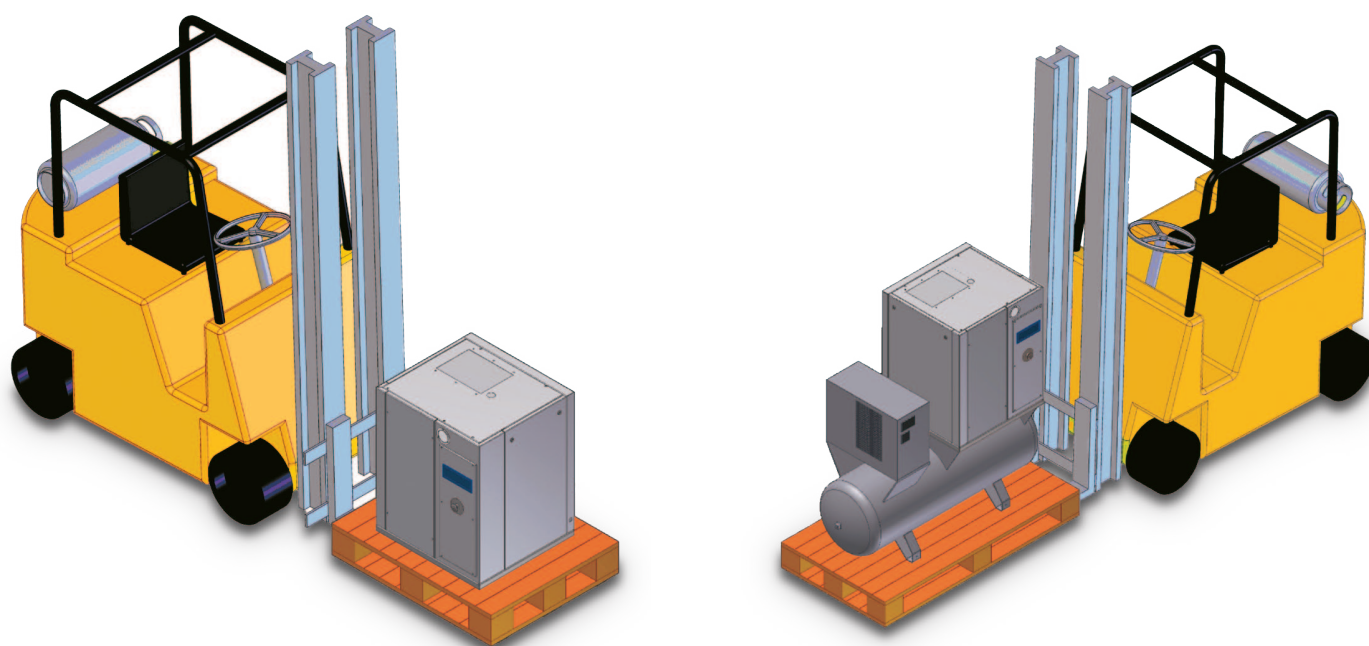
GSE 5.5 - 7.5 - 10/300 - GSE 10/500

3 UNPACKING

The compressor must be lifted using a fork-lift truck of an appropriate capacity.

- Check that the external packaging is undamaged.
- Unpack the machine carefully.
- Check that the outside of the machine is undamaged.
- Dispose of the packaging according to the environmental laws in force.

The compressor must be handled as shown in the figure.



4 POSITIONING

The room where the compressor is installed must have the requirements laid down in the accident prevention laws in force as well as the following characteristics:

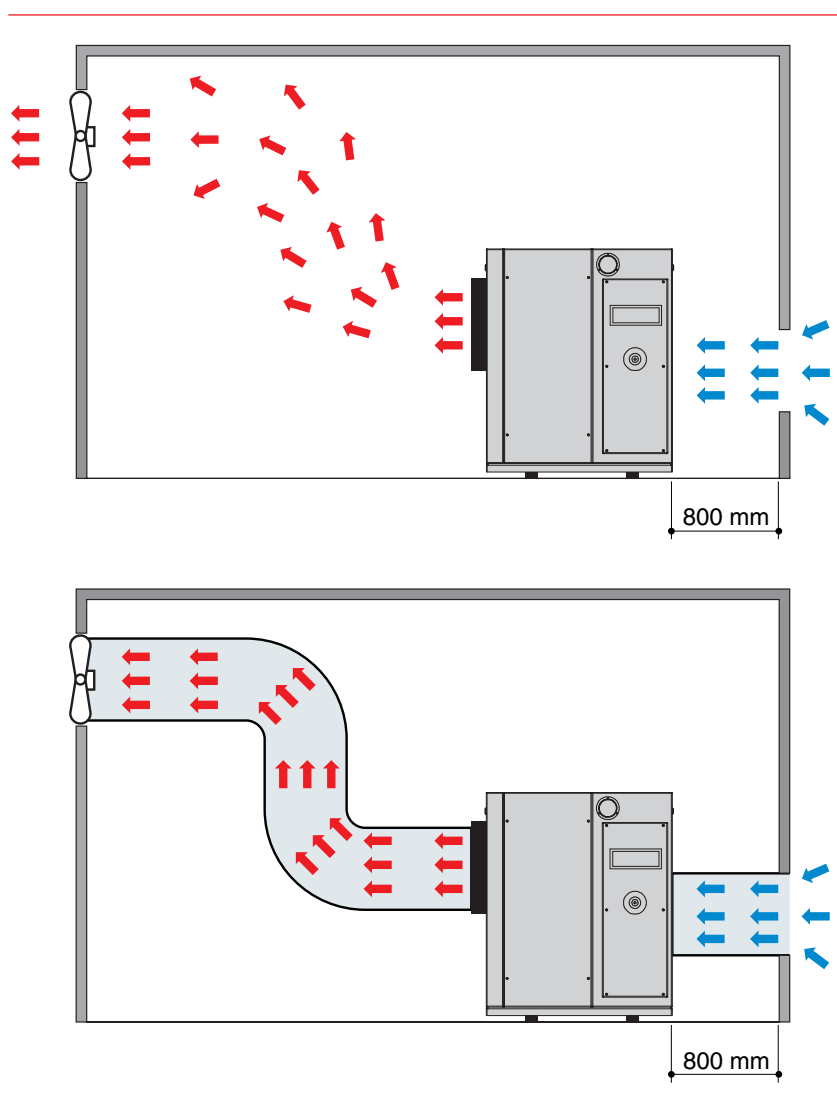
- Low dust percentages.
- Appropriate ventilation and a size that ensures, with the machine running, suitable room temperatures (min 5°, max 45°).

If the hot air ventilation is inadequate, install fans in the room as high as possible (see figure).



WARNING

- Do not install check valves between the compressor and the tank.
- Pipes must not exceed 3 metres in length; otherwise install a fan on the output side (see figure).
- Pipes must have a constant section equal to aerator area.
- The condensate must not be dispersed into the atmosphere or into the mains drains. The drainage pit must be fitted with a valve and a removable container, and must be connected to suitable equipment for separating the water from the oil.



4.1 Positioning the compressor

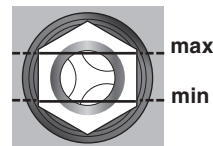
Make sure that the compressor is placed on a flat surface. The compressor does not require any specific preparation of the supporting surface. Anti vibration devices with relative nuts and washers may be supplied on request.

5 BEFORE START-UP



When starting the machine for the first time, make sure that:

- the supply voltage corresponds to that indicated on the plate;
- the size of the main switch mounted on the wall must comply with the indications in the technical data table;
- check for the correct oil level;
- the electrical connections must be done with appropriately sized cables (see Chapter "Connecting the compressor to the electricity supply").



ATTENTION

Strictly follow the SAFETY WARNINGS concerning the use of the machine.

For the European market, tanks are built in compliance with EC Directive 87/404/EEC, and compressors are built in compliance with Directive 98/37/EEC.

Check your model on the data plate shown on the compressor and at the beginning of this manual.

5.1 Using the compressor

The compressors are designed and constructed solely to produce compressed air.



IN THE EVENT OF ANY OTHER USE, THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY RISKS CAUSED.

IN THE EVENT OF USE OF THE COMPRESSOR IN A MANNER OTHER THAN THAT AGREED AT THE TIME OF PURCHASE THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY INJURY OR DAMAGE TO PROPERTY OR THE MACHINE ITSELF.

The electrical system shall not be used in explosion-proof environments or for inflammable products.



WARNING

NEVER DIRECT THE AIR JET TOWARDS PERSONS OR ANIMALS. DO NOT USE COMPRESSED AIR FOR RESPIRATORY PURPOSES OR IN PRODUCTION PROCESSES IN WHICH THE AIR PRODUCED, UNLESS PREVIOUSLY TREATED AND FILTERED, COMES INTO DIRECT CONTACT WITH FOOD PRODUCTS.

5.2 Lubricating the compressor



IMPORTANT

Before carrying out any operations to remove or top up the oil in the compressor, disconnect the power supply and wait for the system to return to normal pressure.

Handle lubricants with appropriate protection.

You are advised to use a lubricant that is compatible with ISO VG 46 oil (mineral base oil) used during testing. The pour point must be at least -8+10°C and the flash point must be above +200°C.

When using incompatible oil, follow the procedure described in chapter "Using the compressor with synthetic base oil".

ESSO	Exolub 46
SHELL	Corena d 46
TOTAL	Azolla zs 46
MOBIL	Dte oil 25
BP	Energol hlp 46
DUCKHAMS	Zircon 46
AGIP	Dicrea 46



- **Never mix oils of different types.**
- Use VG32 grade oil in cold climates and VG68 in hot climates.
- Before starting the compressor without oil, add approximately 0.1 l lubricant in the screw assembly.
- Add mineral lubricant to the tank through the hole up to the level shown in the viewer. The quantity of oil used should be around 4 l.
- Switch the compressor on, initially switching on and off with brief pauses, for around 10 minutes in a row.
- Then switch off the compressor, discharge the pressure and top up the lubricant tank through the hole up to the level shown in the viewer.

5.3 Using the compressor with synthetic base oil



When using synthetic lubricants follow the procedure described below (washing cycle).

- Remove the mineral lubricant from the circuit through the drain cock.
- Add the synthetic lubricant to the tank through the hole up to the required level and replace oil and separator filters.
- Before starting the motor and running the compressor, when switching on for the first time after installation, add approximately 0.1 l lubricant in the screw assembly.
- Start the compressor and leave it to run for about 10 minutes after which leave it to cool. Check the level of the oil once again and top up if necessary.

5.4 Connecting the compressor to the electricity supply



The electrical connection of the machine to the mains is done by the customer under his own responsibility, using specialized personnel and in compliance with the accident prevention standard EN 60204.



Avoid all electric shock risks. Never use the compressor with a damaged lead or extension lead. Check the leads often. Never use the compressor in dangerous environments where electric shocks are possible.

EARTHING

The compressor must be earthed during use in order to protect the operator from electric shocks. The connection must be done by a specialized technician or service center. The earth wire of the power cable on the compressor must be connected exclusively to the terminal on the compressor. Before replacing the plug of the power cable, disconnect the earth wire.

EXTENSION

Do not use damaged extension cables. Make sure the extension lead is in good condition. When using an extension lead, make sure that the cable section is suited to the absorbed current on the compressor. Too thin an extension cable can lead to drops in voltage and power losses or may cause the compressor to overheat. The extension cable section must be proportionate to its length, as shown in the following table:

kW	220/240 V 50/60 Hz	380/415 V 50/60 Hz
4	4 sq. m	2,5 sq. m
5.5	6 sq. m	2,5 sq. m
7.5	10 sq. m	4 sq. m

FUSES AND THERMAL MAGNETIC SWITCH

Install the socket, thermal magnetic switch and fuses near the compressor (at a distance of no more than 3 metres). The thermal magnetic switch and fuses must correspond to the features listed in the table below:

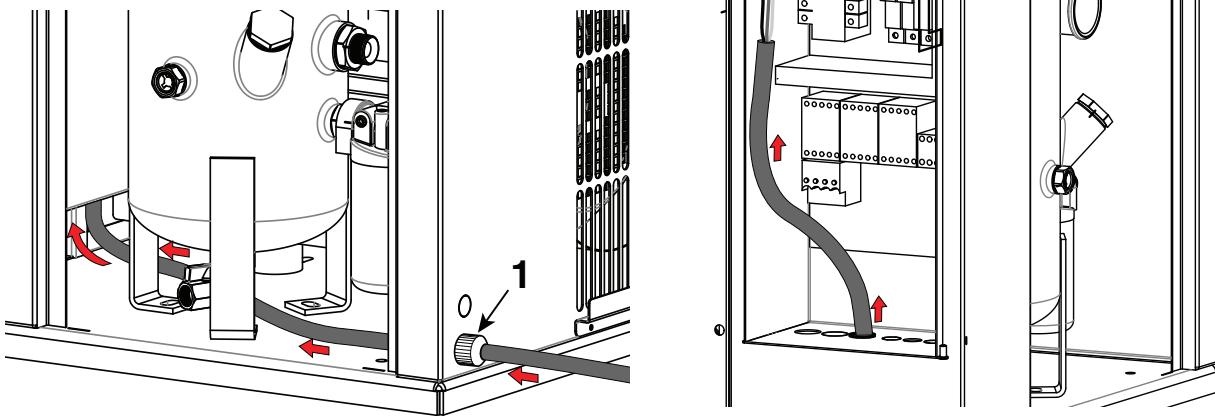
Kw POWER	NOMINAL VOLTAGE 220/240 V		NOMINAL VOLTAGE 380/415 V	
	TH.MAGN.SWITCH	FUSE	TH.MAGN.SWITCH	FUSE
4	25 A	35 A	20 A	25 A
5.5	32 A	36 A	25 A	25 A
7.5	40 A	40 A	25 A	30 A

The values refer to gL type (standard delayed) fuses.
When using aM fuses (motor start), the values must be reduced by 20%.

- Check that the installed power in kW is sufficient.
- The mains voltage must correspond to that shown on the machine's electrical data plate, with a max. permissible tolerance of 6%.
- The power plug must not be used as a switch, but must be plugged into a current socket fitted with an appropriate switch.

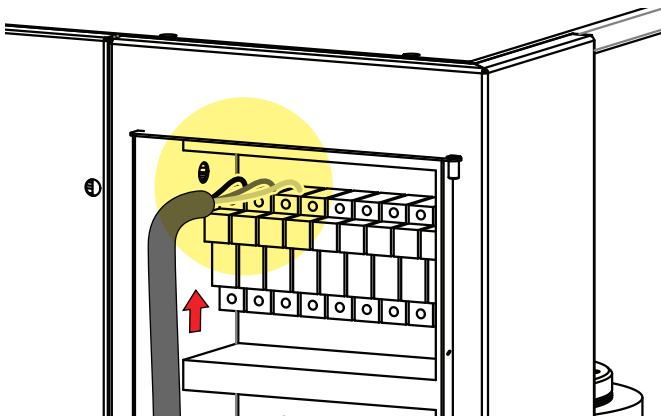
5.5 Connecting the compressor power cable

- Loosen the cable clamp ring nut (1). Insert the power cable through the cable clamp and follow the path shown by the red arrow as indicated in the figure.



ATTENTION

THE POWER CABLE MUST NOT BE TAUT.

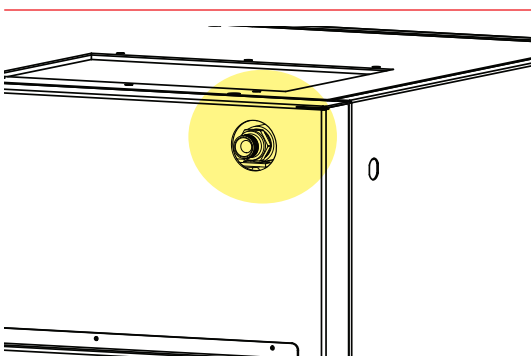


- Fix the three cords of the power cable to the three fuse holder clamps on the electrical panel, tightening the screws as shown in the figure and check that the wires are firmly tight.
- Tighten the cable clamp nut (1).

5.6 Connecting the compressor to the pneumatic supply



Use pneumatic pipes for compressed air with maximum pressure and section suited to the compressor. Do not repair the pipe if faulty, but replace it.



Connect the compressor to the mains pneumatic supply using the 3/4" female coupling on the compressor as shown in the figure.

Use a pipe with a diameter equal to or greater than that of the 1/2" outlet on the compressor.

Install two ball valves of a suitable capacity between:

- the compressor and the air tank
- the air tank and the user line.

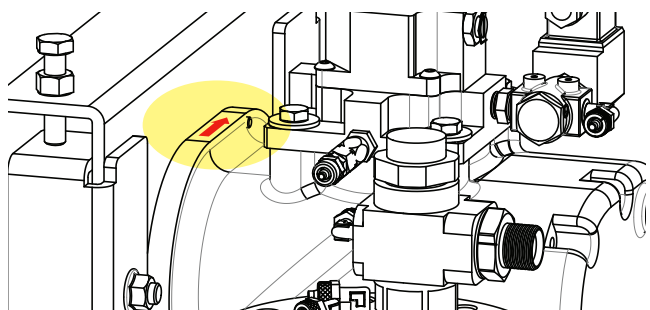
Check valve already installed in the compressor.

6 FIRST START-UP

The first start-up of the compressor (operational testing) must be done exclusively by a specialized technician. Connect the compressor following the instructions in this manual, and then contact the dealer to validate the technical warranty (see notes in the sales clauses).

Having followed all the assembly instructions illustrated in chapter 6, proceed to prepare the compressor for first start-up.

Every time the compressor is switched on, the control panel checks the power line phases to ensure the correct rotation of the screw assembly. On first start-up, switch on the voltage and press the **START** button.



- If the power line phases are correctly positioned, the screw assembly rotates as shown by the arrow in the figure.
- If the power line phases are positioned incorrectly, the control panel will indicate a machine block alarm (see in the specific technical file "Control Panel"). Consequently, change the connections of the two line power phases and start the compressor again.

CAUTION

The rotation of the screw assembly in the opposite direction to that indicated by the relief arrow on the body (see figure) may damage the screw assembly.



WARNING

In case of replacing the electric motor, when starting up for the first time you must visually check the direction of rotation of the screw assembly.

WARNING

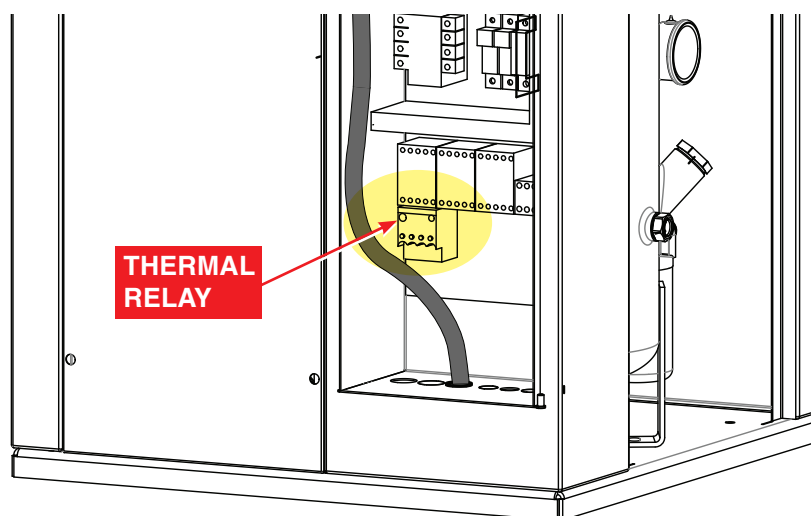
It is indispensable to strictly follow the **SAFETY WARNINGS** concerning the use of the machine.

7 THERMAL RELAY CALIBRATION INFORMATION



IMPORTANT

Switch off the power to the compressor before carrying out any operations inside the electrical panel. To run the compressor correctly on full continuous charge at maximum working pressure makes sure that the temperature in a closed working environment does not exceed +45°C. It is recommended to use the compressor at a maximum load of 80% in one hour at full charge, to ensure correct operation over time.

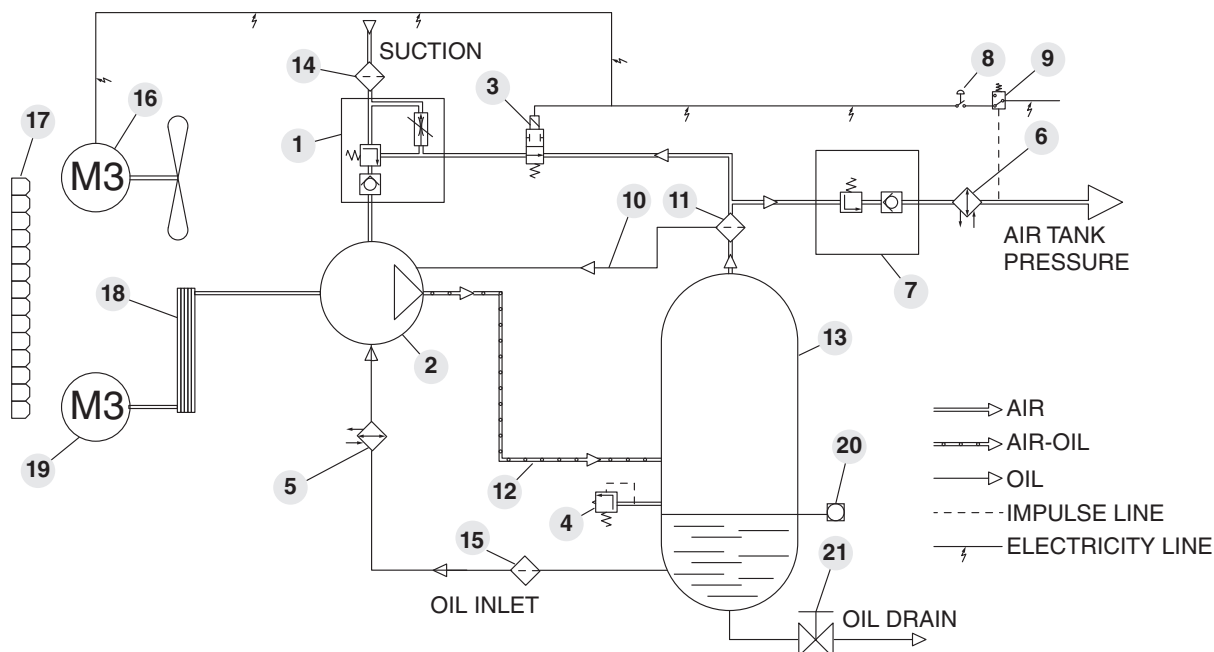


The FR1 thermal relay must be adjusted to within the levels shown in the table below; if the thermal relay cuts in, check the absorption and voltage on the line terminals during operation and the power connections inside the electrical panel and the motor terminal board. The FR1 thermal relay is set according to the following tables:

FOR DIRECT STARTING		
Kw power	Nominal voltage 380/415 V - 3 PH	Nominal voltage 220/240 V - 3 PH
4	8.7 A	15.1 A
5.5	11.2 A	19.3 A

FOR STAR DELTA STARTING		
Kw power	Nominal voltage 380/415 V - 3 PH	Nominal voltage 220/240 V - 3 PH
4	6.5 A	10 A
5.5	8 A	13 A
7.5	9 A	14.5 A

8 ELECTRO-PNEUMATIC CIRCUIT DIAGRAM AND COMPONENT DESCRIPTION



PART LIST

1	Suction valve	14	Suction filter
2	Screw compressor	15	Oil filter
3	3/2 solenoid valve	16	Cooling electro-fan
4	Safety valve	17	Suction pre-filter panel
5	Oil radiator	18	Transmission belt
6	Air radiator	19	Electric motor
7	Min. pressure valve	20	Oil level
8	ON button	21	Oil drain
9	Pressure switch		
10	Oil return from separator		
11	De-oiling filter		
12	Air/oil delivery pipe from screw assembly		
13	Air/oil separator tank		



9 MAINTENANCE

The working hours shown in the table refer to the optimum use of the machine and therefore may vary according to the working environment and the number of cycles.



IMPORTANT! USE ONLY ORIGINAL SPARE PARTS!

IMPORTANT! HOT PARTS INSIDE!

ROUTINE MAINTENANCE

MACHINE	CODE	CODE DESCRIPTION	WORK. HOURS
GSE 5.5 - 7.5 - 10	90.03.018	De-oiling filter	every 4000 hours
GSE 5.5 - 7.5 - 10	90.02.018	Oil filter	every 2000 hours
GSE 5.5 - 7.5 - 10	34.01.025	Air filter cartridge	every 2000 hours
GSE 5.5	See table 11.2 Motor pos. 32A - 32B - 32C	Belt spare parts GSE 5.5	every 8000 hours
GSE 7.5	See table 11.2 Motor pos. 32D - 32E - 32F	Belt spare parts GSE 7.5	every 8000 hours
GSE 10	See table 11.2 Motor pos. 32G - 32H - 32I	Belt spare parts GSE 10	every 8000 hours
GSE 5.5 - 7.5 - 10	38.01.010	Suction pre-filter panel	every 2000 hours
		Oil change	every 2000 hours

SCHEDULED MAINTENANCE ACCORDING TO THE USE ENVIRONMENT

Check oil level and top up if necessary	every 500 hours
Check for blockages and clean radiator	every 500 hours
Check belt tension and wear	after the first 500 hours

9.1 Tensioning the belts



WARNING

EXCESSIVE BELT TENSION WILL REDUCE THE LIFE OF THE SCREW BEARINGS. MAKE SURE THAT THE TRANSMISSION IS PROTECTED WHEN THE MACHINE IS RUNNING IN ORDER TO PREVENT INJURY.

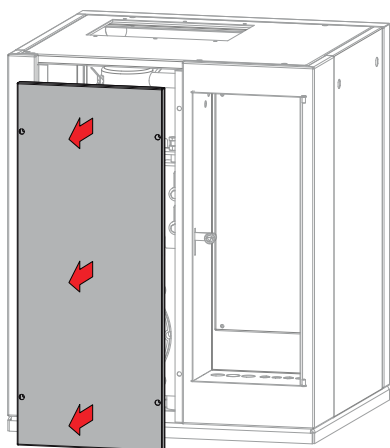


Make sure that the pulleys mounted on the shafts are correctly aligned and that the belts have the correct tension.

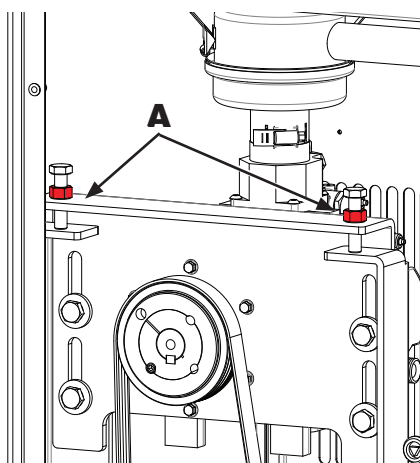
For belt transmission, you are advised to use the “POLY V” model.
The recommended tension values are given in the table below.

MODEL	INITIAL TENSIONING WITH NEW BELT [N]	TENSION OF BROKEN IN BELT OR RE-TENSIONING [N]
GSE 5.5	275	215
GSE 7.5	400	300
GSE 10	410	320

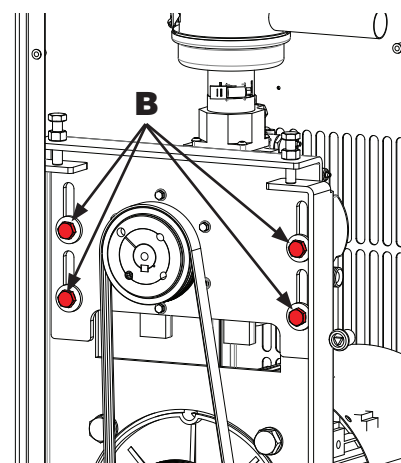
PROCEDURE FOR TENSIONING THE BELT



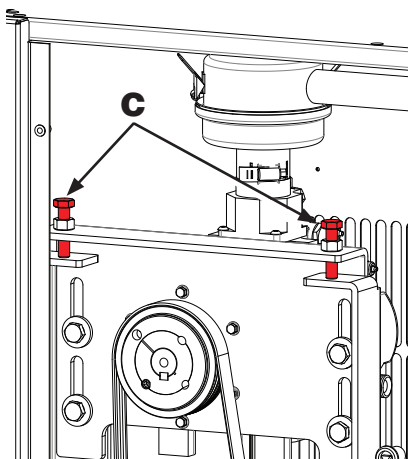
1
Remove the front panel.



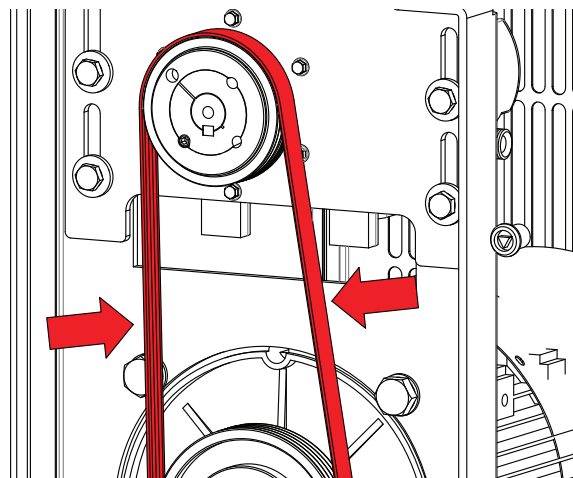
2
Unscrew the two locking nuts **A** on the transmission plate tie rods.



3
Unscrew the four locking nuts **B** on the transmission plate.

**4**

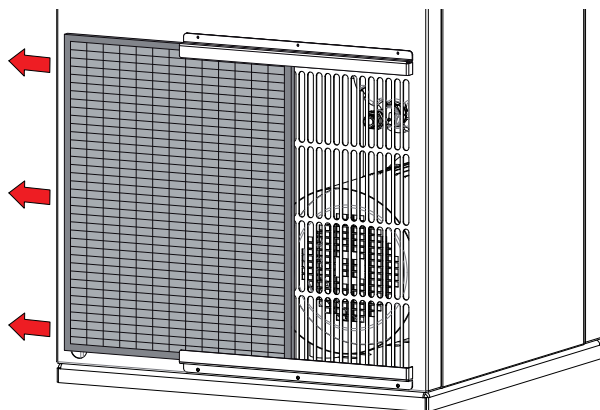
Screw the two tie rods **C** taking care to tension them so that the tensioning plate is as flat as possible.

**5**

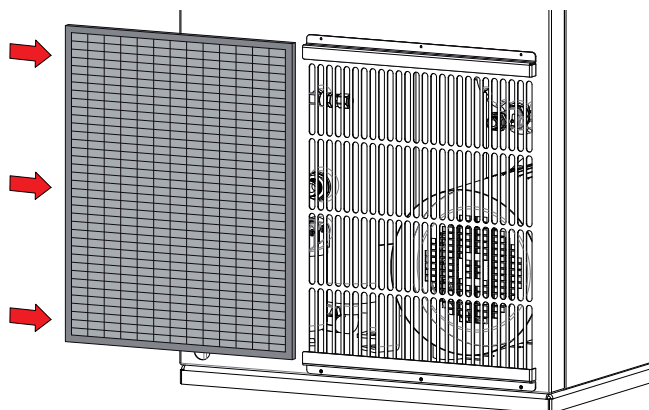
Set the tension according to the following table and once the belt is taut take care to:

- tighten the four plate fixing screws **B**;
- tighten the locking nuts **A** of the two tie rods **C**;
- reassemble the front panel and fix with the 4 screws;
- check the actual belt tension.

9.2 Suction pre-filter maintenance and replacement



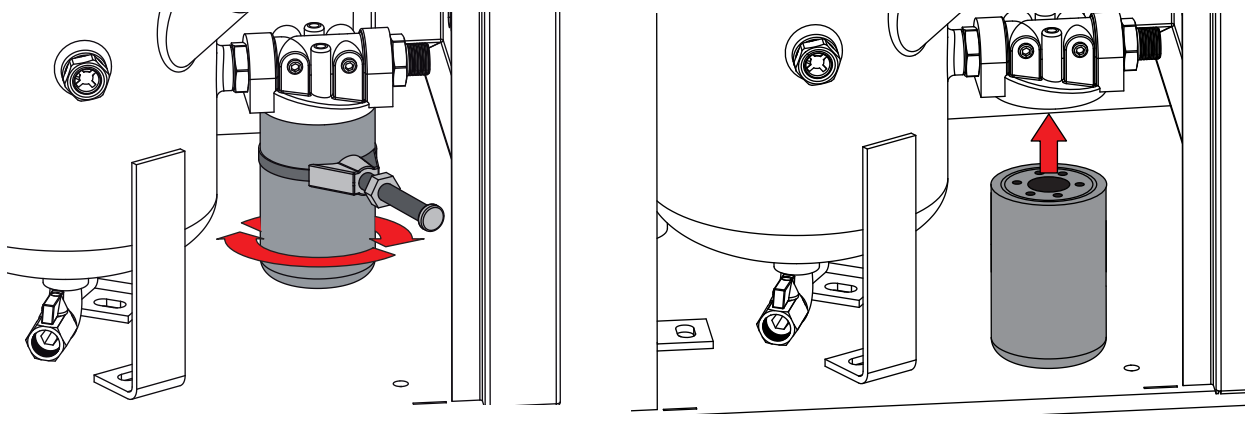
- 1** Slide the pre-filter out from the guides (rear mobile part) and clean it carefully with a jet of air.



- 2** Reassemble the clean pre-filter on the guides taking care to position it so that it covers the whole suction surface of the compressor.

9.3 Replacing the oil filter

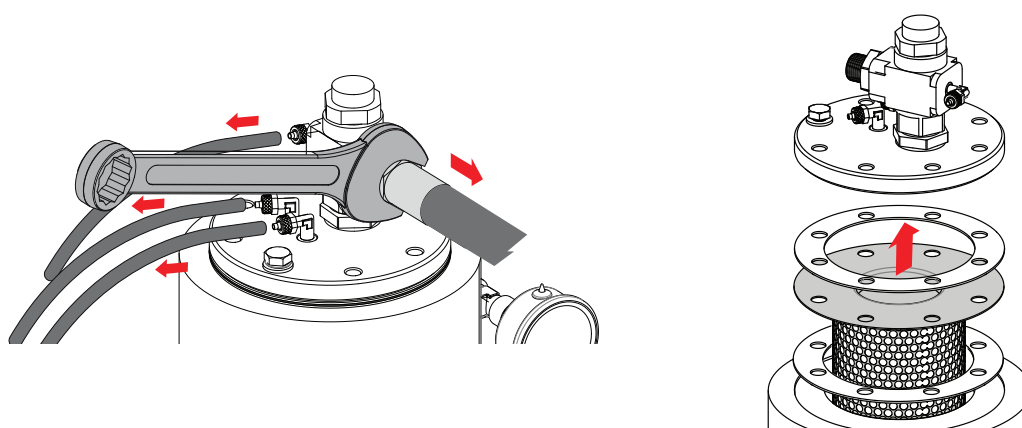
Replace the cartridge **after 2000 hours of work**. Open the rear panel and remove the filter cartridge with a chain or belt wrench. Then replace the used cartridge with a new one.



Before screwing back the filter cartridge, oil the seal. Screw on the new filter cartridge by hand.

9.4 Replacing the de-oiling filter

Replace the first de-oiling cartridge after 4000 hours of work. When using the compressor in heavy duty conditions, refer to the dealer or authorized servicing center for advice on maintenance intervals. Open the side panel; remove all the pneumatic connections (**see figure**) on the de-oiling tank making sure that there is no air in the accumulation tank.



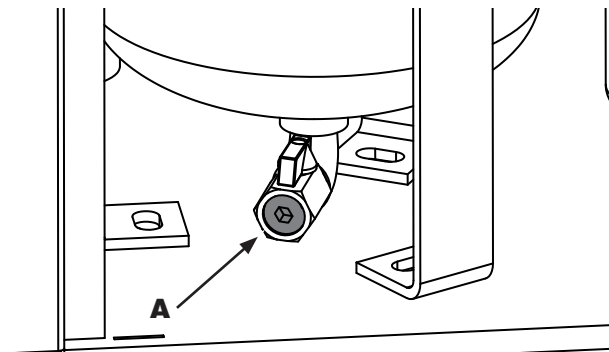
Remove the tank flange.

Remove the inner cartridge (**see figure**). Then replace the used cartridge with a new one.

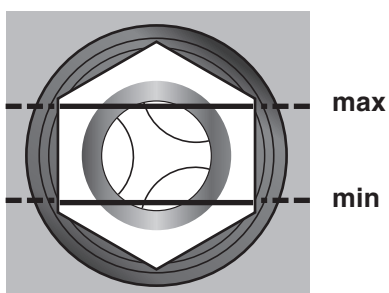
9.5 Oil change

Change the oil **after 2000 hours** and in any case once a year. If the compressor is not used often (a couple of hours a day), change the oil every 6 months and check periodically for any condensation residues by opening the oil drain cock **A**.

Opening the drain cock, the oil begins to drain from the tank. Make sure you have all the equipment necessary to collect the oil.



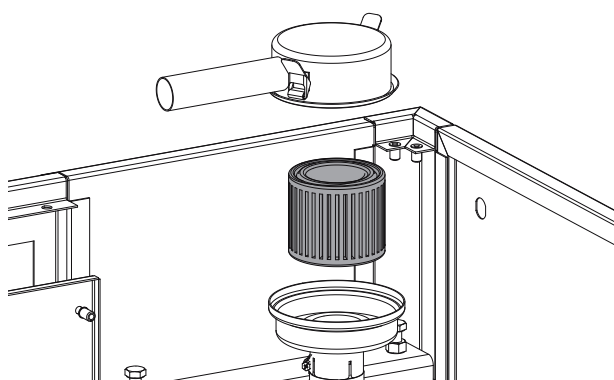
Unscrew the oil plug on the de-oiling tank and open the drain cock. When empty, close the drain cock. Then top up with oil to the level shown on the viewer.



Screw on the oil cap. Having replaced the oil and the oil filter, run for around 10 minutes and then switch off the compressor; check the oil level again and top up if required.

Do not mix different types of oil. Make sure that the oil circuit is completely empty prior to maintenance. When changing the oil, replace the oil filter also.

9.6 Replacing the air filter



Replace the cartridge **every 2000 hours of work**. Release the upper cover and replace the air filter cartridge.

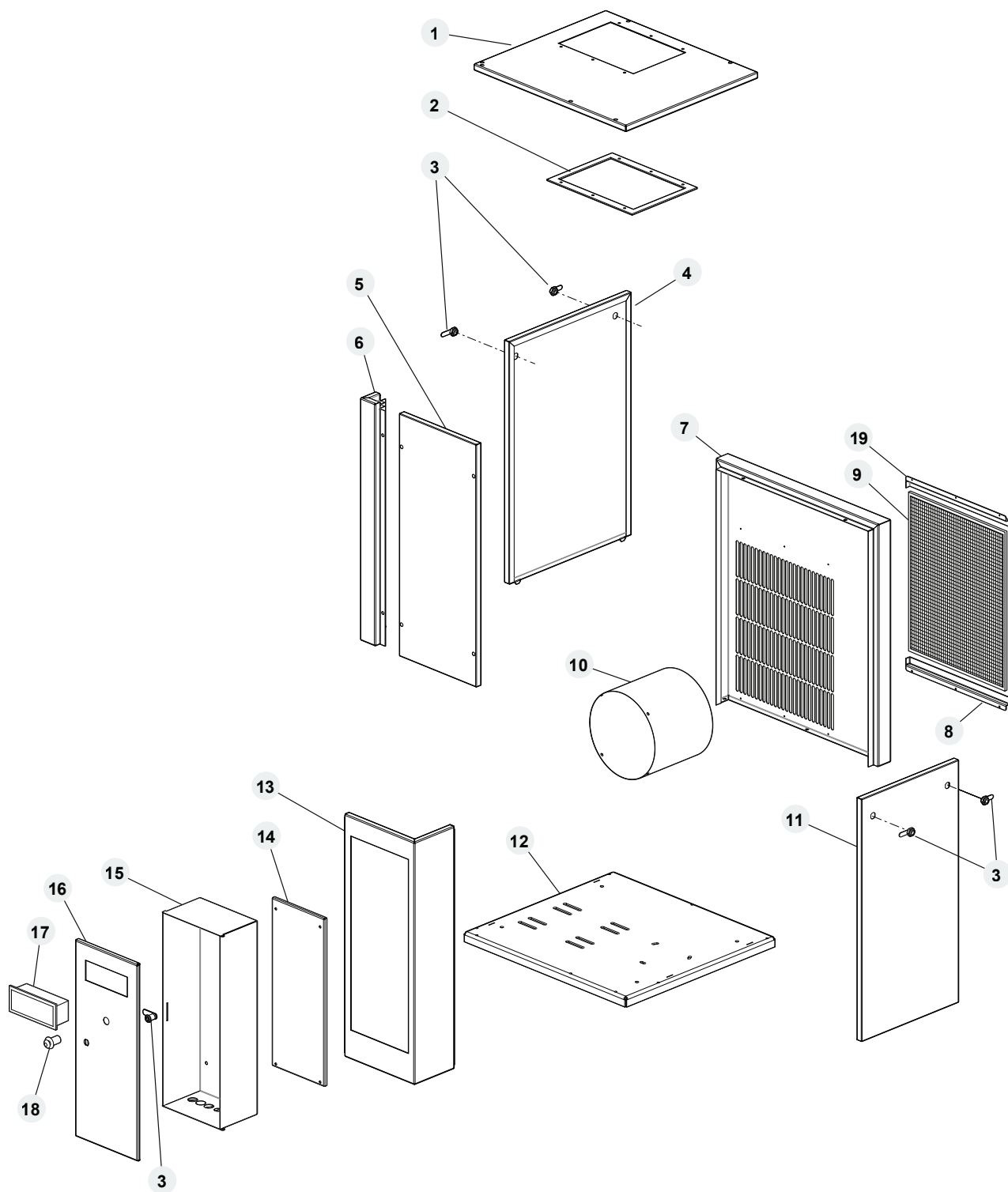


TABLE OF PERFORMED JOBS

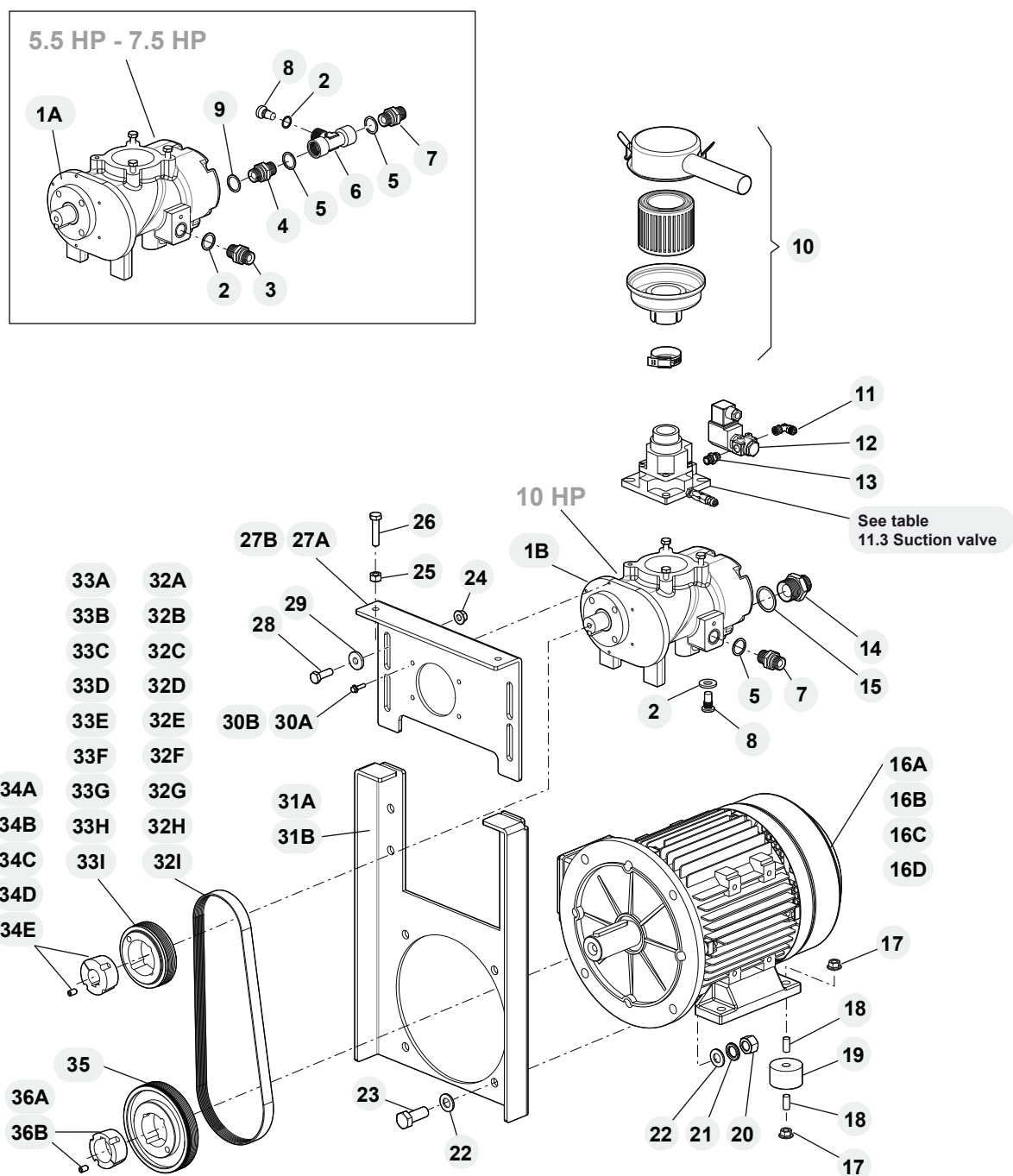
USE AND MAINTENANCE MANUAL • GSE 5.5 HP - 7.5 HP- 10 HP • REV.00



11 SPARE PARTS

11.1 Body


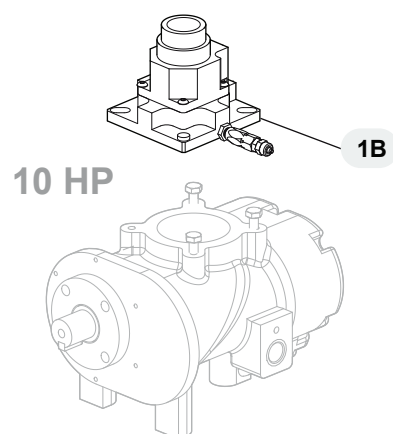
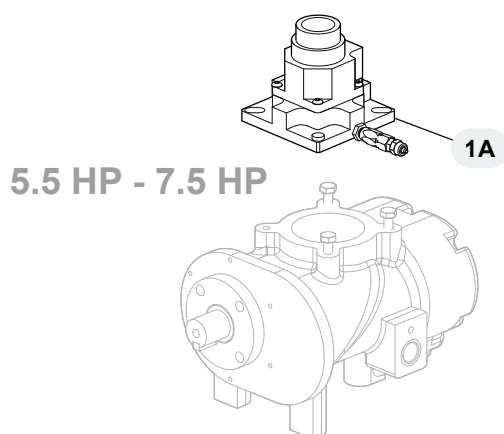
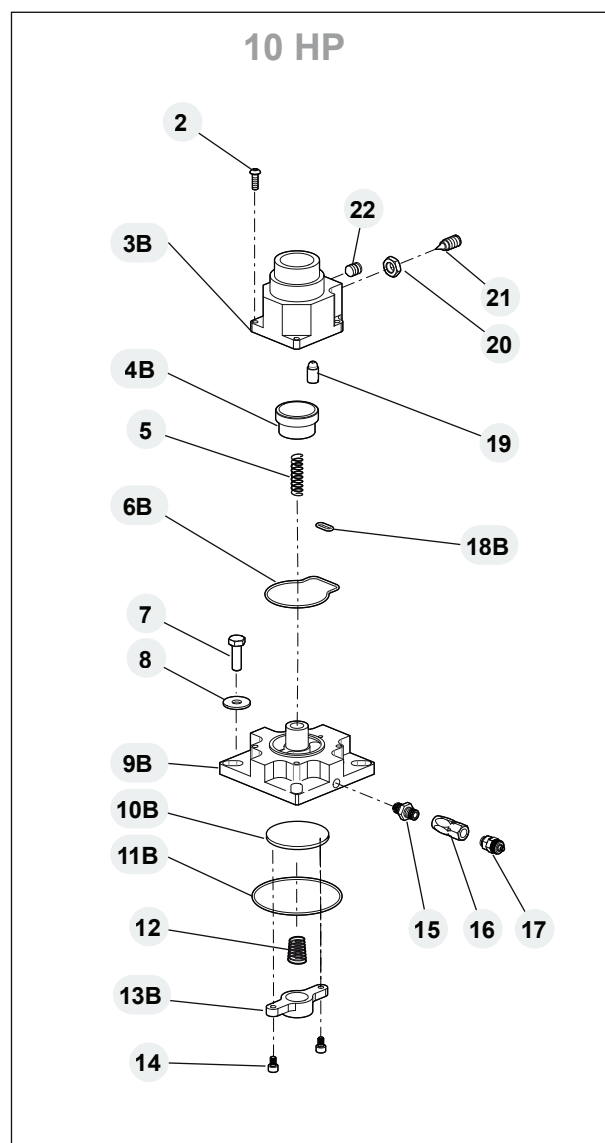
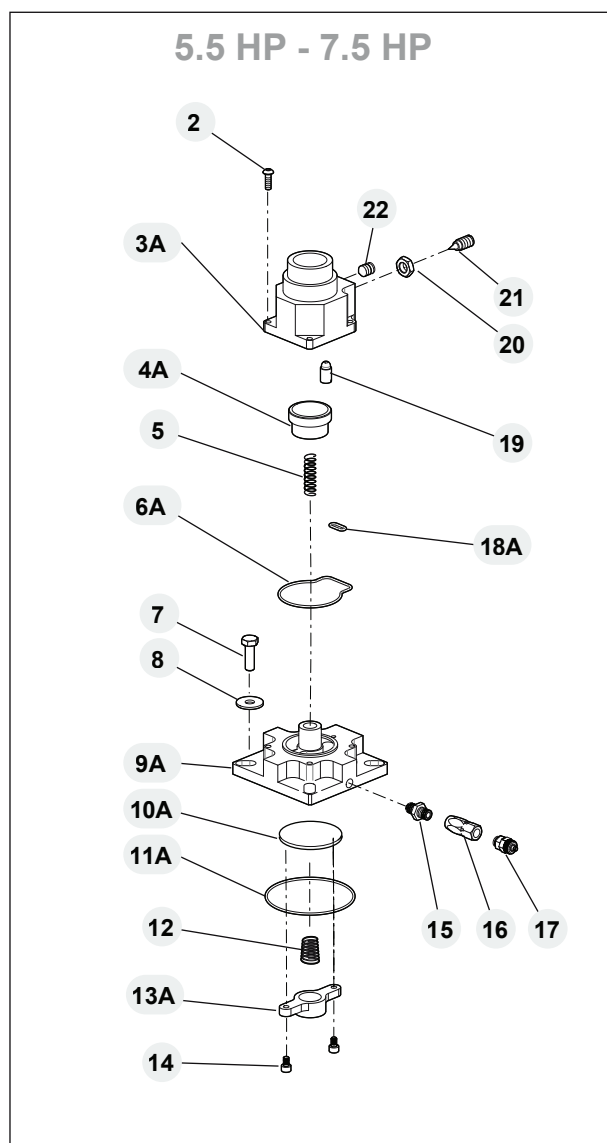
11.2 Motor





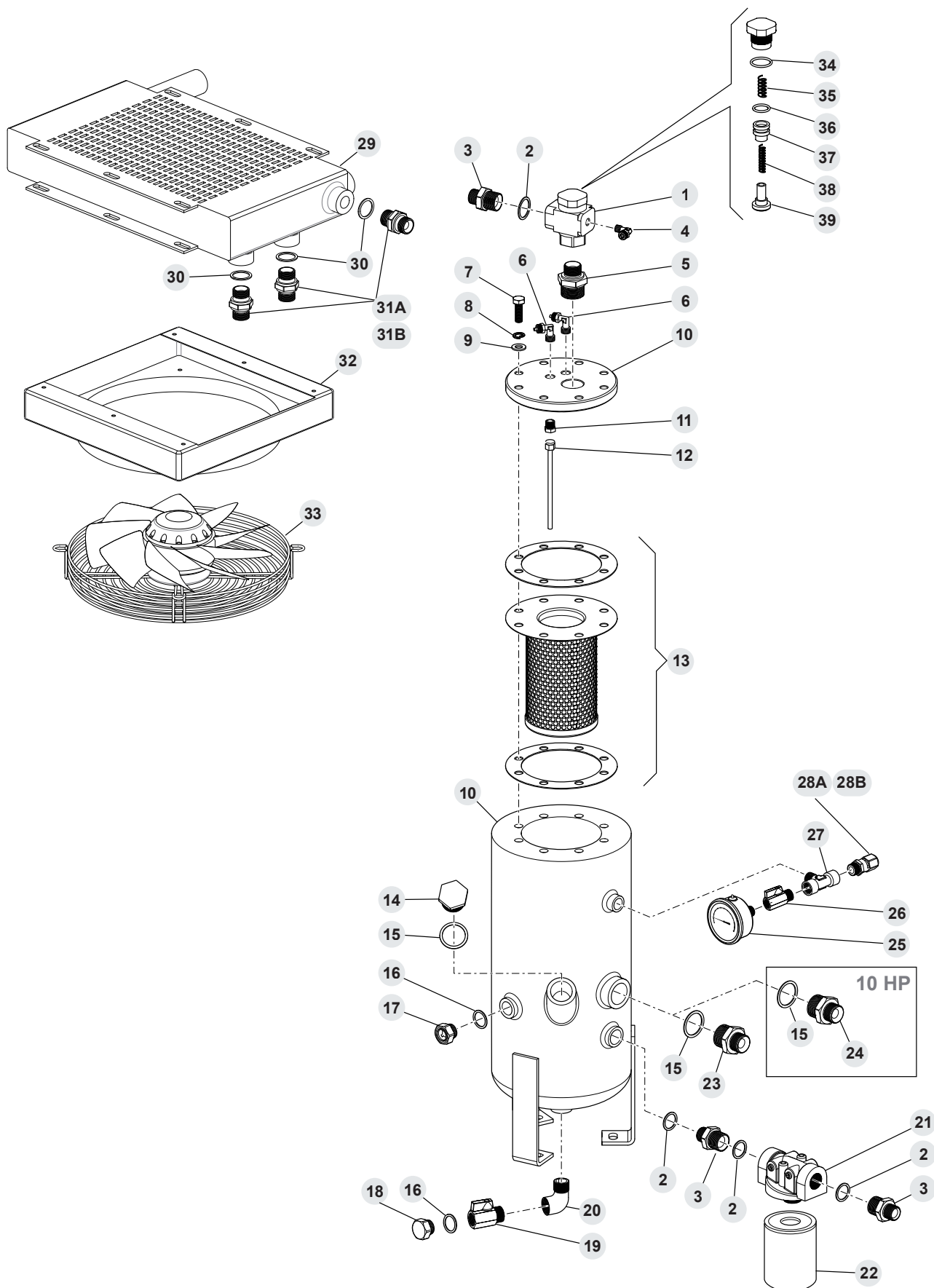
N°	CODE	DESCRIPTION
1A	03.04.001	Screw assembly SCA7 (5.5 HP / 7.5 HP)
1B	03.04.002	Screw assembly SCA8 (10 HP)
2	42.03.004	Copper washer 1/4" G
3	14.50.012	Nipple 1/4" x 3/8" G
4	14.50.010	Nipple 3/4" x 1/2" G cylindrical
5	42.03.001	Washer 1/2" G
6	12.03.014	T- coupling 1/2" G - 1/4" G - 1/2" G
7	14.50.001	Nipple 1/2" G cylindrical
8	12.01.031	Sump 1/4" G for temperature probe
9	42.03.002	Copper washer 3/4" G
10	34.01.024	Complete filter kit SIL 39
11	12.02.035	Push-on fitting 1/4" G x 6
12	90.40.036	Solenoid valve 1/4" G F-F N0 24V AC
13	14.01.002	Nipple 1/4" G
14	14.50.013	Reduction nipple 1" 3/4 G
15	42.03.003	Copper washer 1" G
16A	02.05.001	Electric motor B3/B5 HP 5.5 MEC 112 220/400V/50HZ
16B	02.05.002	Electric motor B3/B5 HP 7.5 MEC 112 220/400V/50HZ
16C	02.05.013	Electric motor B3/B5 HP 10 MEC 132 220/400V/60HZ
16D	02.05.003	Electric motor B3/B5 HP 10 MEC 132 400/700V/50HZ
17	41.05.003	Knurled collar nut M10
18	40.10.002	Grub screw M10 x 35
19	30.01.011	Anti-vibration pad
20	41.02.004	Medium size nut M14
21	42.02.004	Grover washer Ø 14
22	42.01.005	Washer Ø 14
23	40.01.021	Hex.head screw M14 x 40
24	41.05.003	Knurled collar nut M10
25	41.01.003	Nut M10 high
26	40.01.012	Hex.head screw TE M10 x 40
27A	50.08.040	Upper screw support plate (5.5 HP / 7.5 HP)
27B	50.08.050	Upper screw support plate (10 HP)

N°	CODE	DESCRIPTION
28	40.01.011	Hex.head screw M10 x 30
29	42.01.011	Washer Ø 10
30A	40.05.015	Screw TS PEI M8 x 16 (5.5 HP / 7.5 HP)
30B	40.01.022	Screw TBEI M6 X 35 (10 HP)
31A	50.08.039	Lower screw support plate (5.5 HP / 7.5 HP)
31B	50.08.065	Lower screw support plate (10 HP)
32A	11.06.030	Belt J8 350 (5.5 HP - 8 bar)
32B	11.06.001	Belt J8 360 (5.5 HP - 10 bar)
32C	11.06.002	Belt J8 380 (5.5 HP - 13 bar)
32D	11.06.036	Belt J8 330 (7.5 HP - 8 bar)
32E	11.06.035	Belt J8 340 (7.5 HP - 10 bar)
32F	11.06.030	Belt J8 350 (7.5 HP - 13 bar)
32G	11.06.002	Belt J8 380 (10 HP - 8 bar)
32H	11.06.002	Belt J8 380 (10 HP - 10 bar)
32I	11.06.010	Belt J8 390 (10 HP - 13 bar)
33A	09.05.001	Screw pulley J8 Ø 100 (5.5 HP - 8 bar)
33B	09.05.003	Screw pulley J8 Ø 118 (5.5 HP - 10 bar)
33C	09.05.005	Screw pulley J8 Ø 132 (5.5 HP - 13 bar)
33D	09.05.045	Screw pulley J8 Ø 75 (5.5 HP - 8 bar)
33E	09.05.046	Screw pulley J8 Ø 85 (7.5 HP - 10 bar)
33F	09.05.009	Screw pulley J8 Ø 95 (7.5 HP - 13 bar)
33G	09.05.001	Screw pulley J8 Ø 100 (10 HP - 8 bar)
33H	09.05.003	Screw pulley J8 Ø 118 (10 HP - 10 bar)
33I	09.05.004	Screw pulley J8 Ø 140 (10 HP - 13 bar)
34A	09.05.103	Screw pulley sleeve Ø 19 16.10 (5.5 HP - 8/10/13 bar)
34B	09.05.105	Screw pulley sleeve Ø 19 11.08 (7.5 HP - 8 bar)
34C	09.05.114	Screw pulley sleeve Ø 19 13.10 (7.5 HP - 10 bar)
34D	09.05.103	Screw pulley sleeve Ø 19 16.10 (7.5 HP - 13 bar)
34E	09.05.101	Screw pulley sleeve Ø 25 16.10 (10 HP - 8/10/13 bar)
35	09.05.042	Poli-v motor pulley J8 Ø 160 (5.5 / 7.5 / 10 HP)
36A	09.05.122	Motor pulley sleeve Ø 28 20.12 (5.5 HP / 7.5 HP)
36B	09.05.102	Motor pulley sleeve Ø 38 20.12 (10 HP)

11.3 Suction valve


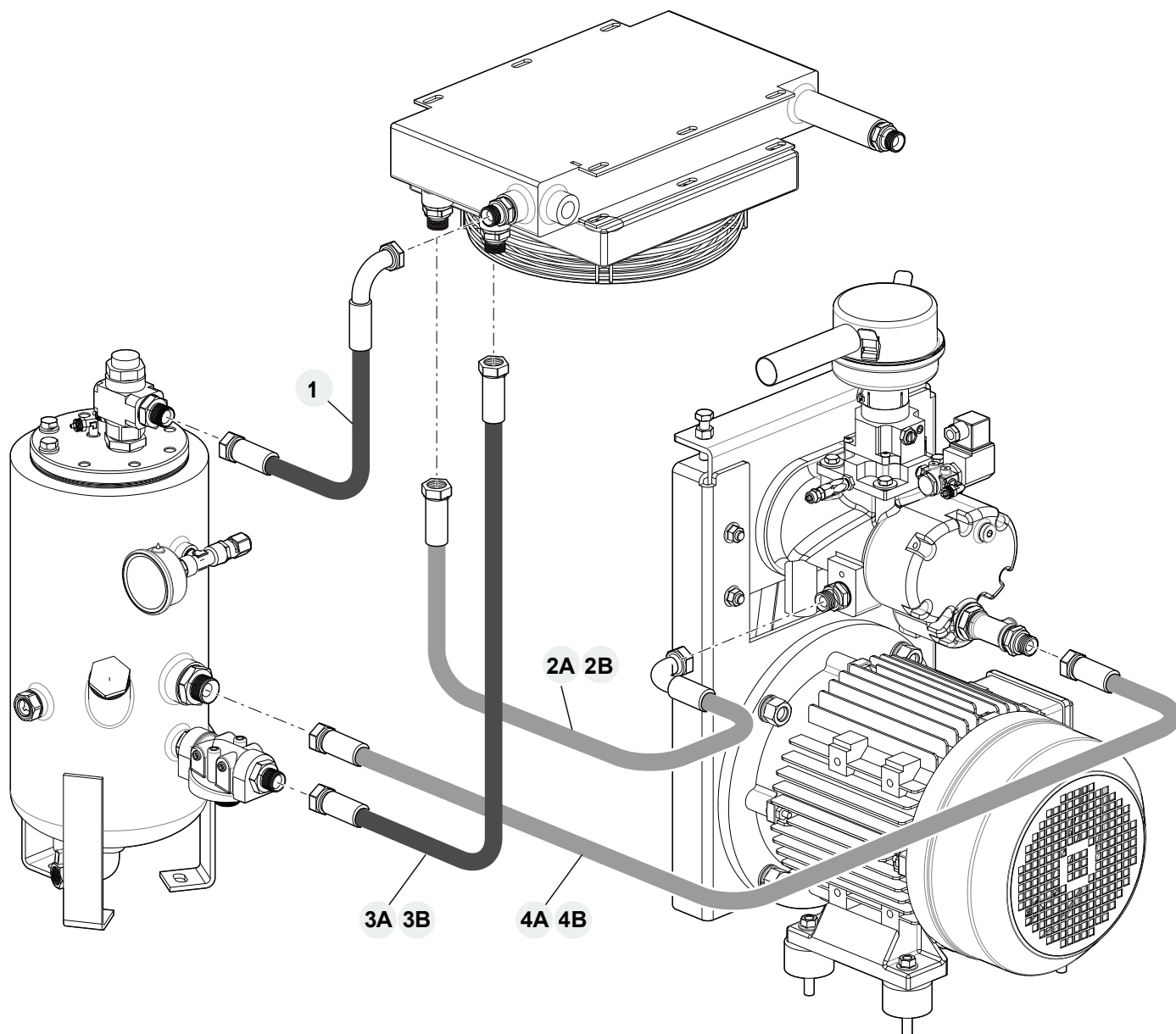


N°	CODE	DESCRIPTION
1A	90.25.013	Complete suction valve S8 (5.5 HP / 7.5 HP)
1B	90.25.011	Complete suction valve S11 (10 HP)
2	40.04.008	Hex.screw M5
3A	50.13.035	Suction valve upper casing S8 (5.5 HP / 7.5 HP)
3B	50.13.008	Suction valve upper casing S11 (10 HP)
4A	50.13.039	Screw cover cap S8 (5.5 HP / 7.5 HP)
4B	50.13.007	Screw cover cap S11 (10 HP)
5	50.13.006	Spring
6A	90.25.126	O-ring 032 NBR 47,35 x 1,78 suction valve S8 (5.5 HP / 7.5 HP)
6B	90.25.103	O-ring 036 NBR 60,5 x 1,78 suction valve S11 (10 HP)
7	40.04.006	Screw TBEI M8 x 25
8	42.01.008	Washer Ø 8 x 24 x 2
9A	50.13.036	Suction valve base S8 (5.5 HP / 7.5 HP)
9B	50.13.005	Suction valve base S11 (10 HP)
10A	50.13.038	Suction valve cap S8 (5.5 HP / 7.5 HP)
10B	50.13.003	Suction valve cap S11 (10 HP)
11A	90.25.127	O-ring 138 NBR 53,5 x 2,6 suction valve S8 (5.5 HP / 7.5 HP)
11B	90.25.102	O-ring 041 NBR 75,92 x 1,78 suction valve S11 (10 HP)
12	50.13.019	Spring
13A	50.13.037	Fork S8 (5.5 HP / 7.5 HP)
13B	50.13.002	Fork S11 (10 HP)
14	40.03.022	Socket head screw M4
15	14.01.011	Nipple 1/8" G
16	90.40.008	One-way oil recovery valve 1/8" G FF
17	12.01.033	Coupling 1/8" G x 6
18A	90.25.125	O-ring 011 NBR 7,65 x 1,78 suction valve S8 (5.5 HP / 7.5 HP)
18B	90.25.104	O-ring 012 NBR 9,25 x 1,78 suction valve S11 (10 HP)
19	50.13.009	Ball support brass valve
20	41.03.017	Hexagonal nut
21	50.13.010	Regulator
22	14.05.015	Grub screw 1/8" G

11.4 Fan – Tank Assembly




N°	CODE	DESCRIPTION
1	90.40.021	Min. pressure valve 3/4" G
2	42.03.002	Copper washer 3/4" G
3	14.50.010	Nipple 3/4" G x 1/2" G
4	12.02.031	"L" push-on fitting 1/8" G x 6
5	14.02.002	Nipple 1" G x 3/4" G cast iron
6	12.02.030	"L" push-on fitting 1/4" G x 6 G
7	40.01.025	Hex.head screw M10 x 35
8	42.02.002	Groover washer Ø 10
9	42.01.002	Washer Ø 10
10	01.01.107	Separator tank 12 l
11	12.01.030	Copper ogive straight coupling 1/4" G x 6
12	20.03.001	Copper tube Ø 6 x 140
13	90.03.018	Complete separator filter
14	14.10.002	Cylindrical plug 1" G
15	42.03.003	Copper washer 1" G
16	42.03.001	Copper washer 1/2" G
17	90.20.008	Oil level 1/2" G
18	14.10.003	Plug 1/2" G
19	19.02.010	Ball valve Minisfer 1/2" G MF
20	18.01.003	Elbow fitting 1/2" G MF
21	90.40.041	Filter head Spinon 3/4" G complete bypass
22	90.02.018	Oil filter
23	14.50.014	Reduced, cylindrical nipple 1" G - 1/2" G gas
24	14.50.013	Reduced, cylindrical nipple 1" G - 3/4" G
25	08.01.001	Pressure gauge D53 rear connection 1/4"
26	19.02.015	Cock 3/8" G - 1/4" G MF
27	12.03.008	"T"-coupling 3/8" G
28A	05.03.051	Safety valve 3/8" G 11 bar
28B	05.03.052	Safety valve 3/8" G 15 bar
29	07.60.010	Air/oil radiator
30	42.03.001	Washer 1/2" G
31A	14.50.001	Nipple 1/2" G (5.5 - 7.5 HP)
31B	14.50.011	Nipple 1/2" G x 3/8" G (10 HP)
32	50.08.070	Fan conveyor Ø 250
33	07.50.010	Electrofan Ø 250
34	90.25.108	O-ring 130 22,22 x 2,62
35	50.013.018	Spring
36	90.25.106	O-ring 3068 17,12 x 2,62 Viton
37	90.40.060	Minimum valve cylinder
38	50.13.015	Spring
39	90.40.061	Minimum valve screw cover cap

11.5 Connections






12 ELECTRIC DIAGRAMS

12.1 LIST OF COMPONENTS 4 - 5.5 - 7.5 KW ELECTRIC DIAGRAMS
List of components 4 kW diagram

POS.	CODE	DESCRIPTION	MANUFACTURER	TYPE
FU2	90.60.003	Fuses M2	WIMEX	10x38 4A
FU3	90.60.004	Fuses AUX	WIMEX	10x38 2A
FU4	90.60.003	Fuses AUX	WIMEX	10x38 4A
FU5	90.60.004	Fuses AUX	WIMEX	10x38 2A
KM1	90.20.040	Contactor M1	MOELLER	DILM12-10-24V
KM4	90.20.038	Contactor M2	MOELLER	DILEM-10-24V
FR1	90.20.210	Thermal relay	MOELLER	ZB12-10-6-10A
TR1	90.40.006	Transformer 100VA	TRASFITALIA IU1000383	0-400/0-12-24V
CF	90.40.005	Phase sequence relay	GAVAZZI	DPA51CM44

List of components 5.5 kW diagram

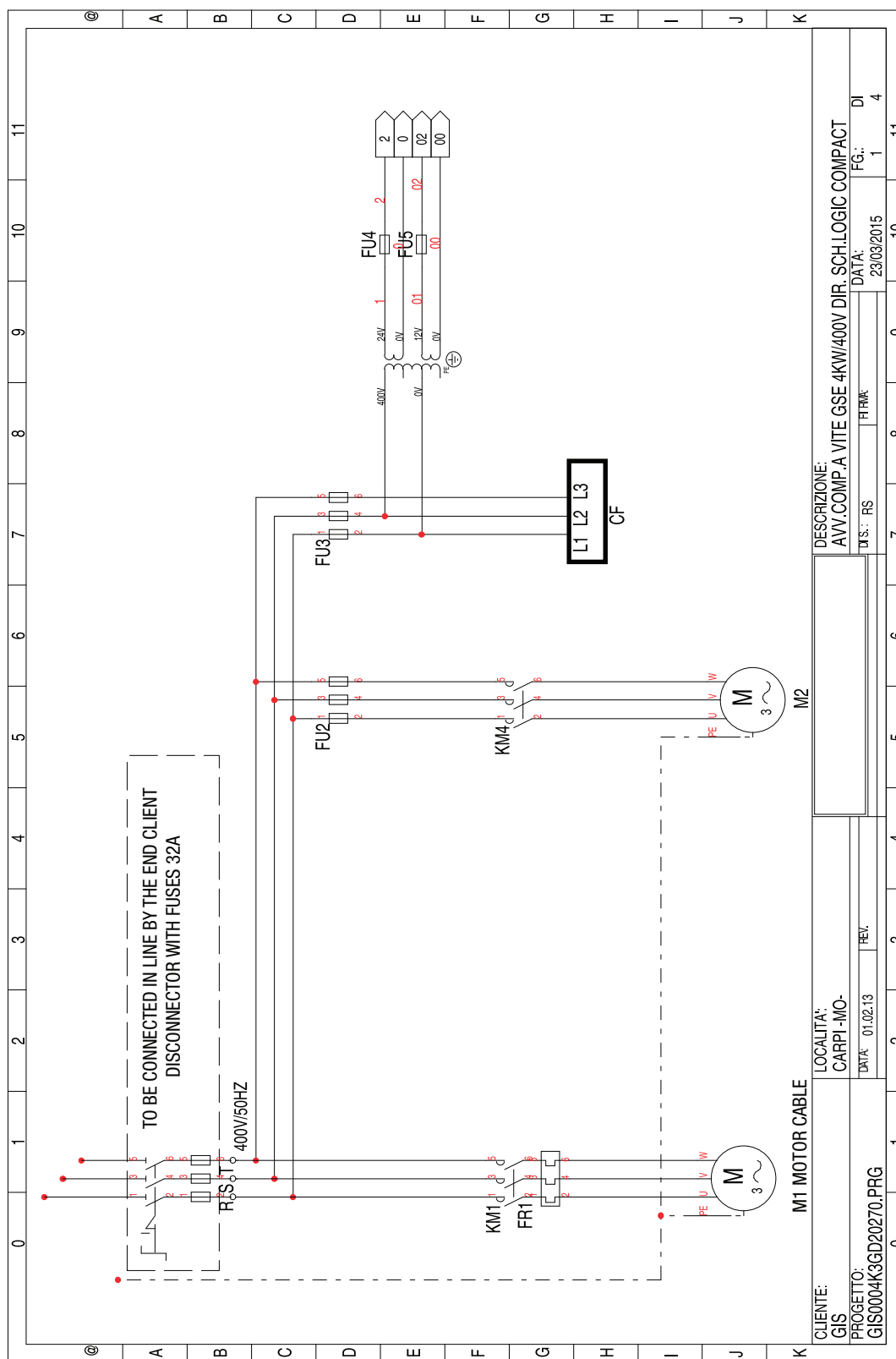
POS.	CODE	DESCRIPTION	MANUFACTURER	TYPE
FU2	90.60.003	Fuses M2	WIMEX	10x38 4A
FU3	90.60.004	Fuses	AUX WIMEX	10x38 2A
FU4	90.60.003	Fuses	AUX WIMEX	10x38 4A
FU5	90.60.004	Fuses	AUX WIMEX	10x38 2A
KM1	90.20.037	Contactor M1	MOELLER	DILM-17-10-24V
KM4	90.20.038	Contactor M2	MOELLER	DILEM-10-24V
FR1	90.20.048	Thermal relay	MOELLER	ZB32-16 10-16A
TR1	90.40.006	Transformer 100VA	TRASFITALIA IU1000383	0-400/0-12-24V
CF	90.40.005	Phase sequence relay	GAVAZZI	DPA51CM44

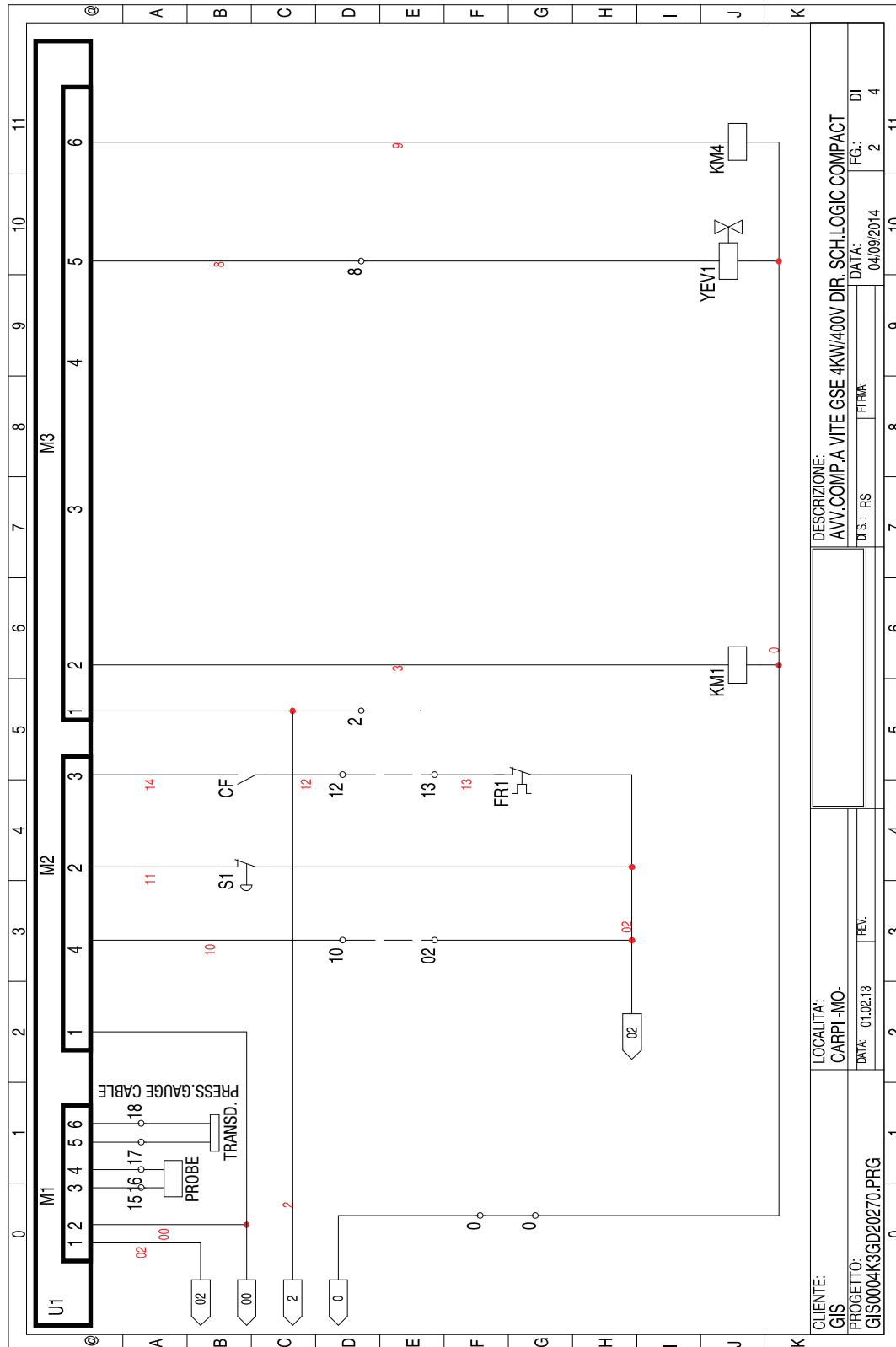
List of components 7.5 kW diagram

POS.	CODE	DESCRIPTION	MANUFACTURER	TYPE
FU2	90.60.003	Fuses M2	WIMEX	10x38 4A
FU3	90.60.004	Fuses AUX	WIMEX	10x38 2A
FU4	90.60.003	Fuses AUX	WIMEX	10x38 4A
FU5	90.60.004	Fuses AUX	WIMEX	10x38 2A
KM1	90.20.210	Contactor M1	MOELLER	DILM12-10-24V
KM2	90.20.211	Contactor M1	MOELLER	DILM12-01-24V
KM3	90.20.212	Contactor M1	MOELLER	DILM09-01-24V
KM4	90.20.038	Contactor M2	MOELLER	DILEM-10-24V
FR1	90.20.213	Thermal relay	MOELLER	ZB12-10 6-10A
TR1	90.40.006	Transformer 100VA	TRASFITALIA IU1000383	0-400/0-12-24V
CF	90.40.005	Phase sequence relay	GAVAZZI	DPA51CM44

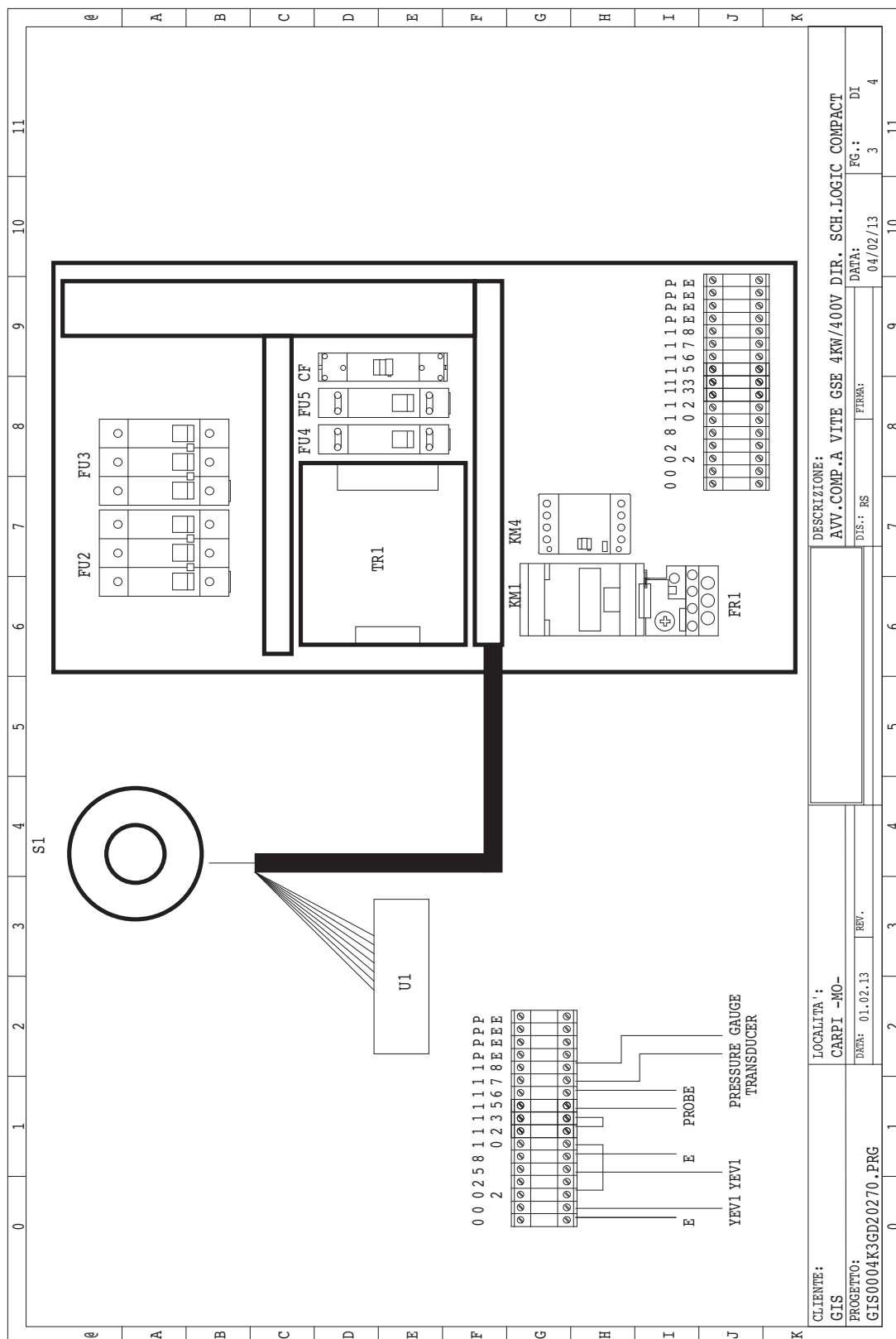


ELECTRIC DIAGRAM 4 KW (1 of 4)



ELECTRIC DIAGRAM 4 KW (2 of 4)


ELECTRIC DIAGRAM 4 KW (3 of 4)

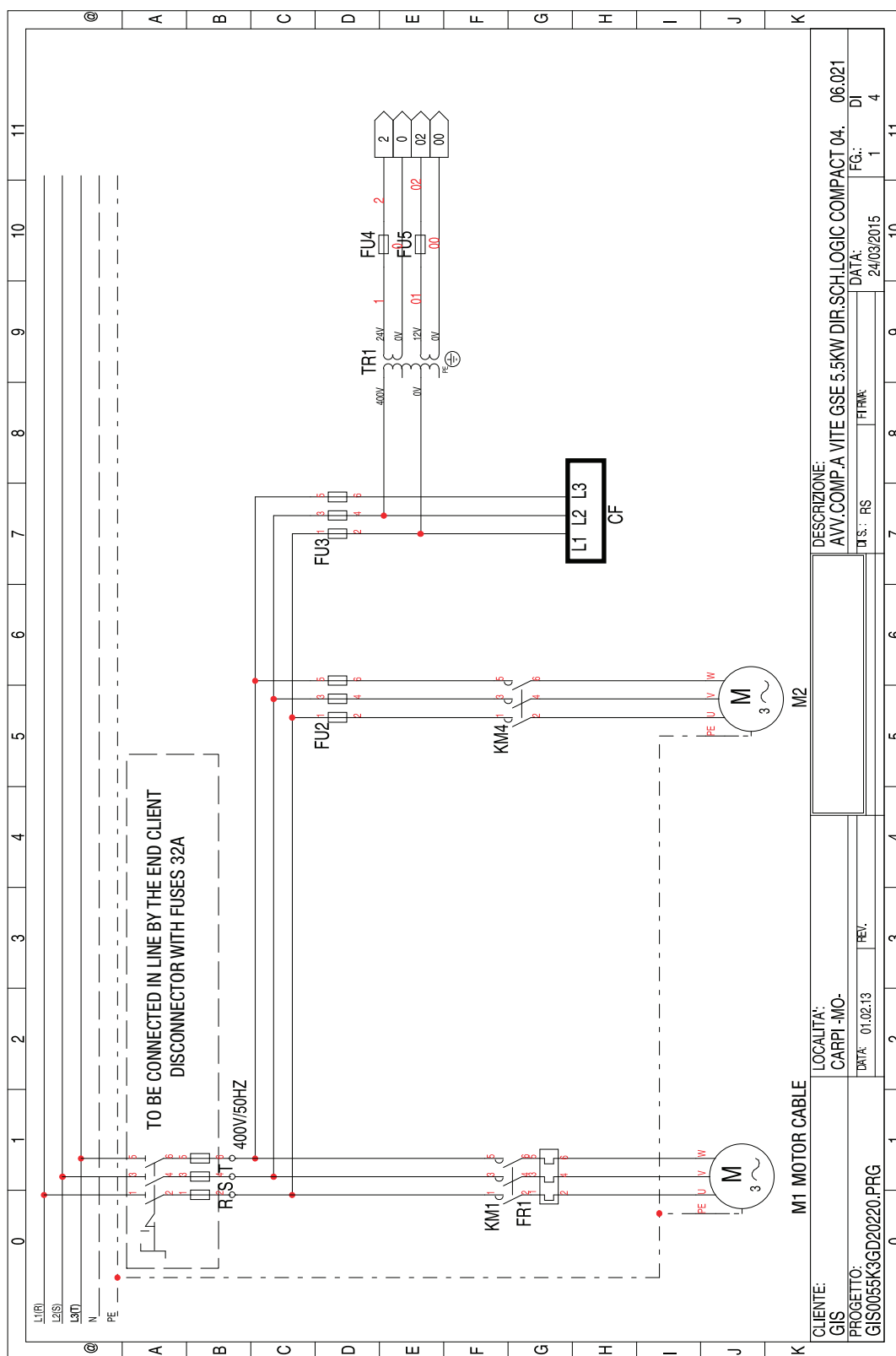




COMPONENT DESCRIPTION 4 KW (4 of 4)

0	1	2	3	4	5	6	7	8	9	10	11
CODE CODICE	DESCRIPTION				DESCRIZIONE		MANUFACTURER CONSTRUTTORE		TYPE TIPO		
FU2		FUSES M2			FUSIBILI M2		WIMEX		10X38 4A		
FU3		FUSES AUX			FUSIBILI AUX		WIMEX		10X38 2A		A
FU4		FUSES AUX			FUSIBILI AUX		WIMEX		10X38 4A		
FU5		FUSES AUX			FUSIBILI AUX		WIMEX		10X38 2A		B
KM1		CONTACTOR M1			CONTATTORE M1		MOELLER		DILM12-10-24V		
KM4		CONTACTOR M2			CONTATTORE M2		MOELLER		DILEM-10-24V		
FR1		THERMAL RELAY			RELE' TERMICO		MOELLER		ZB12-10 6-10A		C
TR1		TRANSFORMER 100VA			TRASFORMATORE 100VA		TRASFTITALIA IU1000383		0-400/0-12-24V		
CF		PHASE SEQUENCE RELAY			RELE' SEQUENZA FASI		GAVAZZI		DPA51CM44		D
S1		EMERGENCY STOP			EMERGENZA STOP		ELTEN		EFB/40		
U1		CHECK SHEET			SCHEDA CONTROLLO		GIS				E
YEV1		SOLENOID VALVE			ELETTROVALVOLA		GIS				
TRASD.		PRESSURE GAUGE			PRESSOSTATO		GIS				F
											G
											H
											I
											J
											K
CLIENTE: LOCALITA':											
GIS CARPI -MO-											
PROGETTO: DATA: 01.02.13 REV.											
GIS0004K3GD20270.PRG											
DESCRIZIONE:											
AVV.COMP.A VITE GSE 4KW/400V DIR. SCH.LOGIC COMPACT											
DIS.: RS DATA: 02/02/13 FG.: DI											
4 4 4											

ELECTRIC DIAGRAM 5.5 KW (1 of 4)



The diagram illustrates the internal layout of a control cabinet, showing the arrangement of components and their electrical connections. The main cabinet is divided into sections labeled A through K. The components and their connections are as follows:

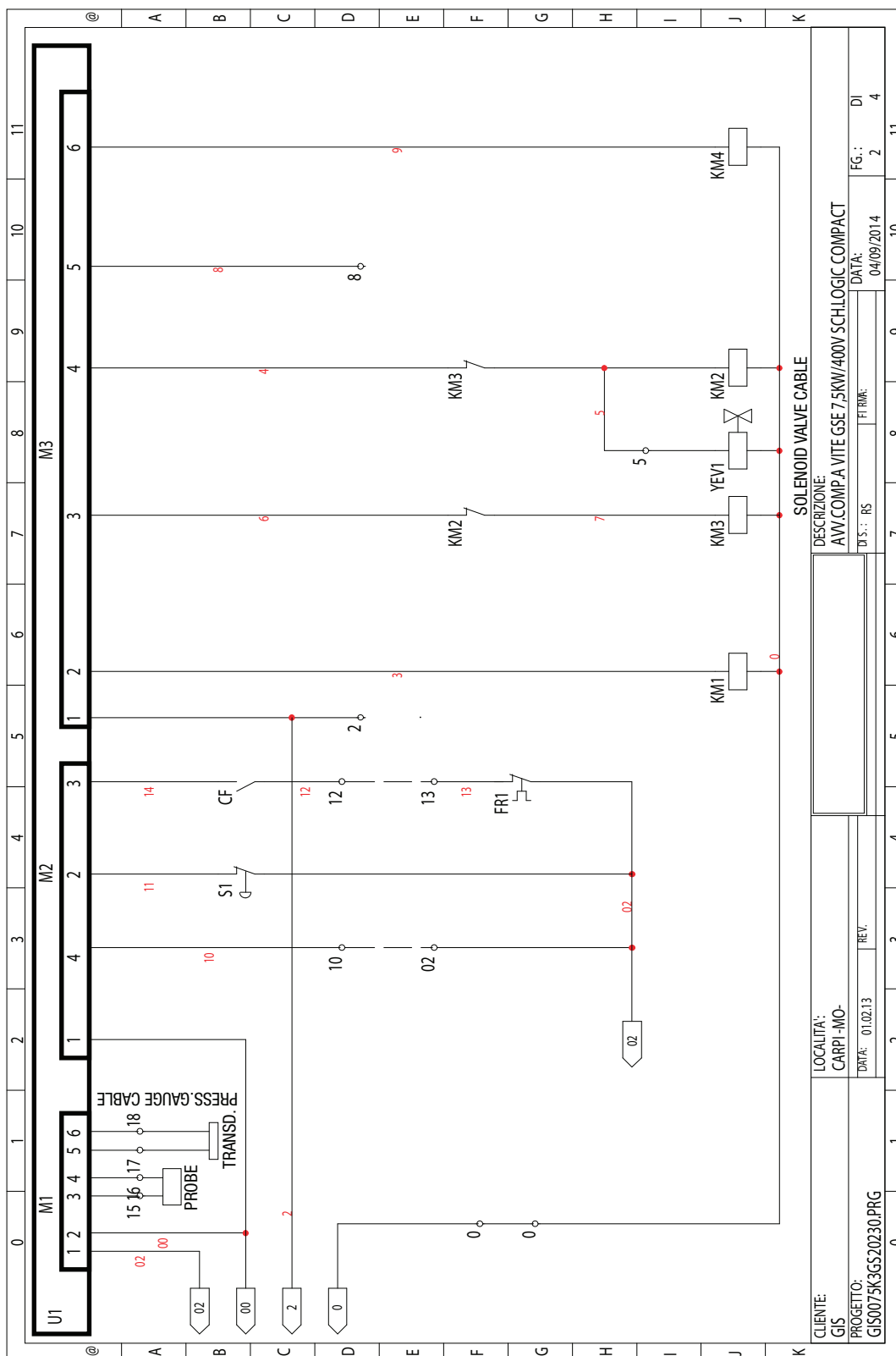
- Section A:** Contains a fan symbol and a unit labeled **U1**.
- Section B:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section C:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section D:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section E:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section F:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section G:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section H:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section I:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section J:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.
- Section K:** Contains a terminal block with the following codes: 00028111111PPRSTPP20235678EE EE.

The components and their connections are as follows:

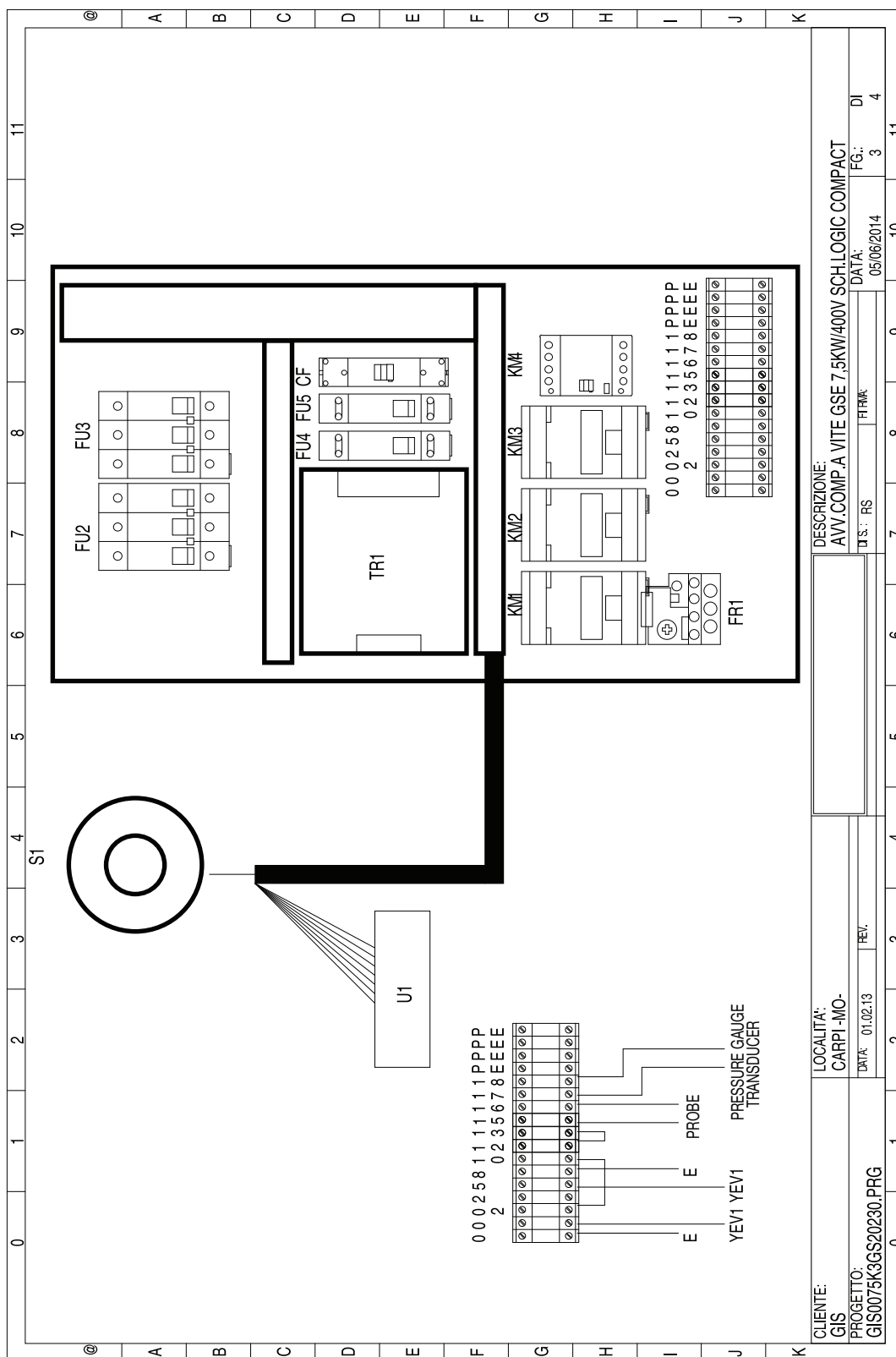
- FU2, FU3, TR1, FU4, FU5 CF:** These are fuses and a thermal relay, connected to the main power supply.
- KM1, KM4:** These are contactors, connected to the motor and the pressure gauge/transducer.
- FR1:** This is a thermal relay, connected to the motor.
- Pressure Gauge/Transducer:** This is connected to the main power supply and the contactors.

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[illegible]

ELECTRIC DIAGRAM 7.5 KW (2 of 4)


ELECTRIC DIAGRAM 7.5 KW (3 of 4)





COMPONENT DESCRIPTION 7.5 KW (4 of 4)

	0	1	2	3	4	5	6	7	8	9	10	11
@												
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												



TEST CERTIFICATE

This certifies that the compressor passed the factory tests.

The following checks were carried out:

- **All components were correctly assembled and work properly;**
- **The electrical tests were completed with positive results;**
- **The parts subject to pressure were tested with positive results;**
- **The oil and air circuits have no leaks;**
- **The outside of the machine has no visual defects;**
- **The air yield, absorbed power and working temperature parameters are regular.**

The tester

**I DICHIARAZIONE DI CONFORMITÀ CE**

La GIS S.r.l. con sede legale in Via Dei Barrocciai, 29 - 41012 Carpi (MO) Italy, dichiara che l'elettrocompressore d'aria descritto nel presente libretto, con numero di matricola e anno di costruzione sotto indicati, è conforme alle seguenti disposizioni:

Direttiva: 2006/42/CE

Direttiva: 2004/108/CE: compatibilità elettromagnetica e successive modifiche

Direttiva 2006/95/CE: bassa tensione e norme pertinenti

Il rappresentante legale
Gianfranco Sgarbi

D CE - ÜBEREINSTIMMUNGSERKLÄRUNG

Die Firma GIS S.r.l. mit Sitz in Via Dei Barrocciai, 29 - 41012 Carpi (MO) Italy, erklärt, daß der in dieser Betriebsanleitung beschriebene Elektroluftkompressor, mit der folgenden Seriennummer und dem folgenden Baujahr die folgenden Direktiven entspricht:

Richtlinie: 2006/42/CE

Richtlinie: 2004/108/CE: elektromagnetische Kompatibilität und folgende Änderungen

Richtlinie 2006/95/CE: Niederspannung und dazu gehörige Richtlinien

Der gesetzliche Vertreter
Gianfranco Sgarbi

F DÉCLARATION DE CONFORMITÉ CE

La Sté. GIS S.r.l. avec son siège en Via Dei Barrocciai, 29 - 41012 Carpi (MO) Italy, déclare que l'électrocompresseur d'air décrit dans cette notice, avec numéro de série et année de fabrication comme spécié ci-dessous, est conforme aux dispositions suivantes:

Directive: 2006/42/CE

Directive: 2004/108/CE: compatibilité électromagnétique et modications suivantes

Directive 2006/95/CE: basse tension et normes pertinentes

Le représentant légal
Gianfranco Sgarbi

E DECLARACIÓN DE CONFORMIDAD CE

La sociedad GIS S.r.l. con sede en Via Dei Barrocciai, 29 - 41012 Carpi (MO) Italy, declara que el electrocompresor de aire descrito en este manual, con número de serie y año de fabricación como se detalla abajo, está conforme con las disposiciones siguientes:

Directiva: 2006/42/CE

Directiva: 2004/108/CE: compatibilidad electromagnética y sucesivas modificaciones

Directiva 2006/95/CE: baja tensión y normas pertinentes

El representante legal
Gianfranco Sgarbi

GB CE - CONFORMITY DECLARATION

Messrs. GIS S.r.l. with headquarters in Via Dei Barrocciai, 29 - 41012 Carpi (MO) Italy, declare that the air electrocompressor described in this manual, with serial No. and year of manufacture as specied below, complies with the following regulations:

Directive: 2006/42/CE

Directive: 2004/108/CE: electromagnetic compatibility and following modications

Directive 2006/95/CE: low voltage and relevant rules

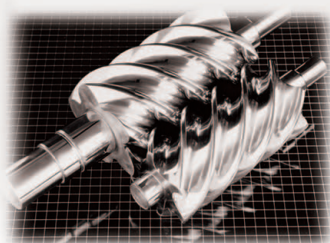
The legal representative
Gianfranco Sgarbi

Fascicolo tecnico - Dossier technique
Technical file - Techn. Dokumentation

Nr. di matricola/Modello Seriennummer/Typ
Nr. de série Número de serie/Modelo
Serial number/Model

Anno di costruzione Baujahr
Année de fabrication Año de fabricación
Year of manufacture

GIS S.r.l.
Via dei Barrocciai, 29
41012 CARPI (MO) Italy



AIR COMPRESSORS



AIR COMPRESSORS

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