mattei

Rotary Vane Air Compressors

Operation And Maintenance Manual

For Models

1018

1022

1030

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SECTION 1

FOREWORD

For correct and safe use of your compressor, carefully read all instructions and precautions listed in this manual, as well as general safety regulations.

1) The installation and use of the compressor must be in accordance with current regulations for safety at work.
2) The owner of the machine is responsible for it's proper maintenance, which is vital to ensure safe operation. Worn or damaged components must be replaced immediately.
3) Only authorized and trained personnel should install, operate and maintain the compressor.
4) In the event of differences between the instructions in this manual and present safety regulations, the most restrictive ruling shall apply.
5) Safety devices must not be interfered with and must be tested regularly to ensure their correct operation.
6) If several compressors are installed in the same line, a gate valve must be fitted to each compressor.
7) Electrical connections must be in accordance with all applicable electrical regulations. The compressor must be properly grounded and protected by the appropriate electrical fuses. A dedicated circuit breaker must be fitted for each compressor.

RECOMMENDATIONS

As well as the rules and regulations issued by local authorities, please observe the following installation recommendations:

1) Place the compressor in a clean, well-ventilated area away from any heat source and dust. If necessary, install intake pipe. This pipe must not cause any excessive restrictions. For questions, contact your local distributor or Mattei Compressors, Inc.
2) When the compressor is installed in open or outdoor areas, a roof or other suitable covering must protect the equipment from the elements. Leaves, grass, sand, etc. must not obstruct the air/oil radiator.
3) The intake air must be clean, free of smoke, toxic or flammable vapor which might cause a fire or explosion.
4) For air cooled machines, ensure adequate ventilation, proportional to the installed power. To avoid overheating of the machine, it is necessary to prevent re-circulation of the cooling air.

NOTE: Mattei Compressors, Inc. will not be held responsible for:

1. Injuries to persons, objects and animals caused by the nonobservance of the above precautions.
2. Improper use of compressed air produced by their compressors.
3. Nonobservance of common safety-at-work rules.
4. Lack of care when transporting or lifting the compressor.
5. Nonobservance of proper safety rules during operation and maintenance of the compressor, even if not expressly mentioned in this manual.

OPERATING INSTRUCTIONS

1) The compressor must not be operated in smoke or toxic and flammable vapors.
2) The compressor must not be operated at a pressure higher than the pressure that has been stipulated by the manufacturer.
3) Without further purification and treatment, compressed air cannot be used as breathing air.
4) The compressor is designed for the compression of air only and no other gases.
5) Where flexible pipes are used for the distribution of compressed air, the pipes must be suitable for the working pressure and volume of air produced by the compressor. Damaged or worn pipes must be replaced immediately.
6) Silencing enclosures, where fitted, must be kept closed during compressor operation.

MAINTENANCE

Only properly trained and authorized personnel must operate the compressor. Be certain that the following conditions are observed during maintenance:

1) Use only the appropriate tools for any repair or maintenance work.
2) Maintenance or repair work must never be performed with the compressor running. Compressors fitted with automatic start control systems may start at any time. Before commencing any repair or maintenance work, disconnect and positively isolate the electrical connection to the compressor.
3) Before working on the electrical control box of the compressor, disconnect and positively isolate the electrical connection.
4) Before commencing any repair or maintenance work on the compressor, ensure that all pressure is released from the system and that the pressure gauge reads zero.

5) Do not use flammable solvents to clean the compressor or it's parts.
6) Do not perform any task that will produce high temperatures (e.g., welding) near the compressor lubrication system.
7) Do not make any modifications or repairs to pressure vessels.
8) Do not leave any tools, rags, loose parts etc. on the motor or compressor.
9) Check that all controls, stop/start buttons, emergency stop and safety devices are working correctly after all maintenance and repair work. Check that the operating temperature and pressure settings are in accordance with the manufacturer's specifications.
10) Use only Mattei genuine replacement parts and lubricants for all maintenance and repair work. Failure to carry out these checks can cause serious problems.

TECHNICAL INFORMATION

Model	HP	CFM	Psi	dB(A)	oil capacity
1018	25	101	125	81	3 gallon
	dB(A) with cabinet 72				
1022	30	124	125	81	3 gallon
	dB(A) with cabinet 72				
1030	40	150	125	81	3 gallon

**Compressors run efficiently at 1750 RPM

IMPORTANT NOTES

- Mattei ERC/AC models are oil injected, lubricated and air-cooled rotary vane air compressors driven directly by an electric motor. They are complete with electric starter, air after-cooler combined with the oil cooler, and condensate separator assembly with electronic drain.
- The quality of the lubricant used in Mattei ERC/AC models is important for the correct operation of the compressor. **Mattei Rotoroil 8000F2** is recommended for use in Mattei Rotary Vane Compressors, and is required for warranty coverage. (See limits of warranty coverage on reverse of warranty registration form.)
- This manual contains only operating and maintenance instructions. **Do not attempt to carry out any operation not defined in this manual without first obtaining relevant information through your Authorized Mattei Distributor.**
- Failure to properly observe the instructions contained herein will void the new compressor warranty. Any alterations to the compressor must be authorized by Mattei, in writing in order to maintain the new compressor warranty.

SECTION 2

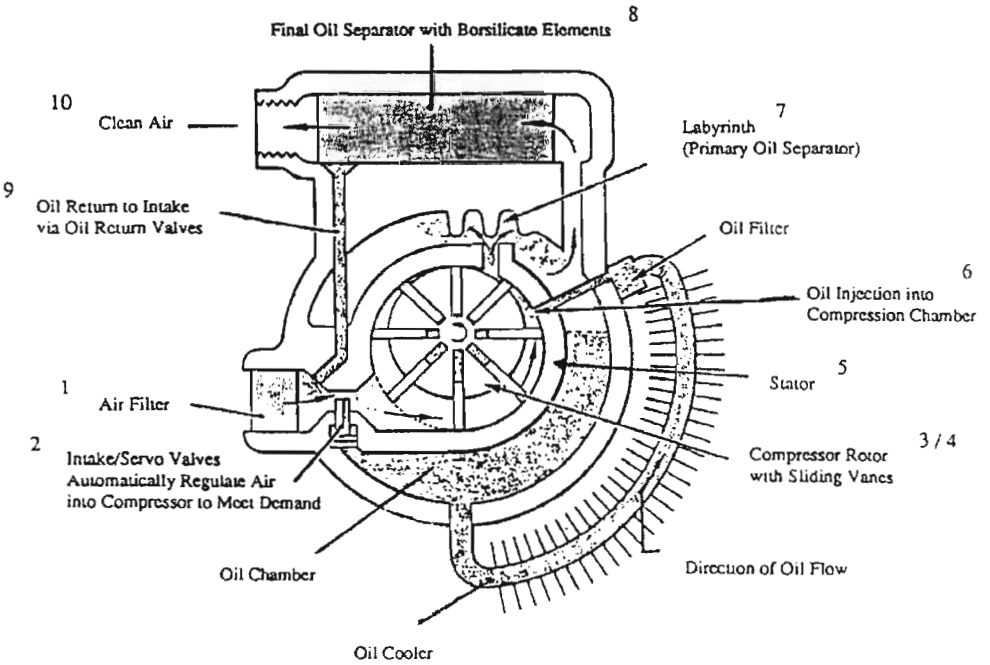
PRINCIPLES OF OPERATION

Atmospheric air is drawn through the inlet air filter (1) and intake valve (2) into the compression chambers formed by sliding vanes (3). The vanes slide in rotor slots cut in the rotor (4), which in turn is eccentrically mounted within the stator (5). As the rotor turns, the vanes slide in and out of the slots and are kept in contact with the stator wall by centrifugal force. The air is compressed through the contraction in volume of the chambers formed by the vanes, rotor, and stator wall.

Throughout the compression cycle, the oil carries out the four vital functions of lubricant, sealant, control fluid and coolant. However, after compression, it is necessary to remove the oil that has been previously injected (6).

The air/oil mixture passes from the compression chamber into the oil chamber, where most of the oil is separated from the air via a labyrinth (7). The rest of the air/oil mixture passes into the final separation stage (8) and the oil is returned to the intake through the oil return valves (9). Only clean air is delivered to the point of usage (10).

Fig.1 OPERATING PRINCIPLE OF ROTARY VANE COMPRESSOR



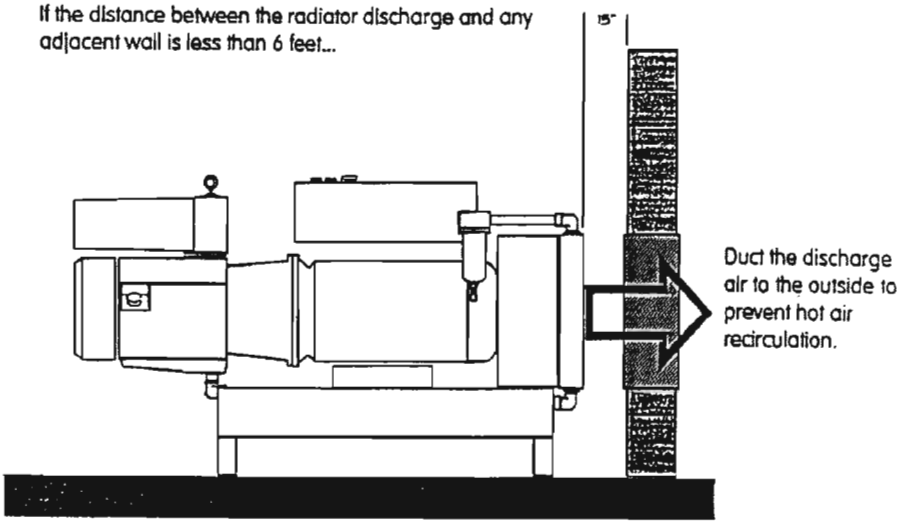
SECTION 3

INSTALLATION AND START-UP

Location of Installation

Place the compressor in a well-ventilated environment, away from any heat source. Check that the radiator is placed at least **SIX** feet away from any wall or large obstruction.

For **all models** it is best to install the air/oil radiator near an opening so that hot air can escape to the outside.
Always place the compressor in a position that allows easy access to perform standard maintenance. Avoid all inclines and ensure that the compressor is level in both directions.



PIPE REQUIREMENTS FOR AIR DISTRIBUTION SYSTEMS

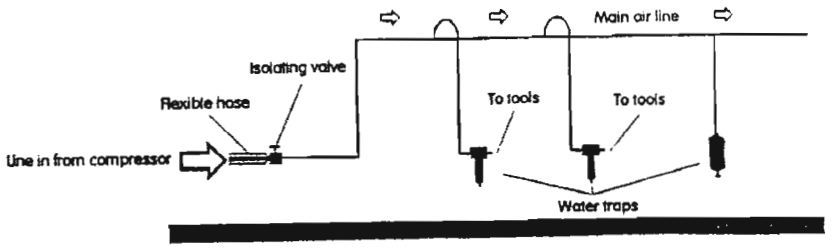
The size of the pipe should be large enough to keep the pressure drop between the receiver and the point of use to a minimum. With a pipe the same diameter as the compressor outlet, the length of the pipe should not exceed 150 feet. If longer runs of pipe are required, please review the following table for recommended pipe diameter sizes:

Compressor flow in CFM	Length of pipe line in feet							
	30	50	60	100	150	200	250	300
18-21	3/4"	3/4"	1"	1"	1"	1"	1"	1"
21-25	3/4"	1"	1"	1"	1"	1"	1"	1"
25-35	1"	1"	1"	1"	1"	1"	1"	1"
35-46	1"	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
46-60	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
60-70	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
70-88	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
88-106	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"
106-124	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"
124-141	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2"
141-159	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2"
159-177	2"	2"	2"	2"	2"	2"	2"	2"
177-212	2"	2"	2"	2"	2"	2"	2-1/2"	2-1/2"
212-247	2"	2"	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"
247-283	2"	2"	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"
283-318	2"	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
318-353	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"
353-389	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"

Ensure that any pressure drop between the compressor/receiver and the point of use is kept to a minimum.

CONNECTION TO THE AIR DISTRIBUTION SYSTEM

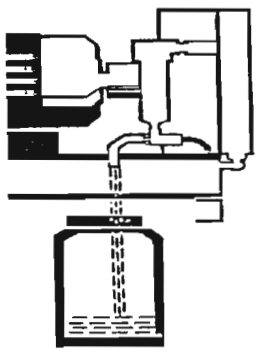
Always fit a pipe or a flexible hose and an isolating valve between the compressor and the distribution system (see drawing)



Typical air distribution system

The pipe size must be large enough to keep any pressure drop to a minimum. The main air line cannot be smaller than the compressor air outlet size. With a pipe the same diameter as the compressor outlet, the length of the pipe should not exceed 150 feet.

All pipes should slope to an accessible moisture-drain point. Normally a slope of 1% is sufficient. Connect a drainpipe to the bottom of the condensate separator, to drain the condensate into a suitable vessel. The condensate drain must be fitted as near as possible to the point of use. Outlets should be taken from the TOP of the main air line (see drawing) to keep moisture out.



Install a proper container for condensate to drain into.

Fit a flexible hose with an air gun to the distribution system, near the compressor. This will be used the clean the air/oil cooler periodically.

Check all pipes and fittings regularly to avoid leaks in the system. Filters, regulators and other accessories should be maintained properly according to the manufacturer's recommendations.

START-UP INSTRUCTIONS

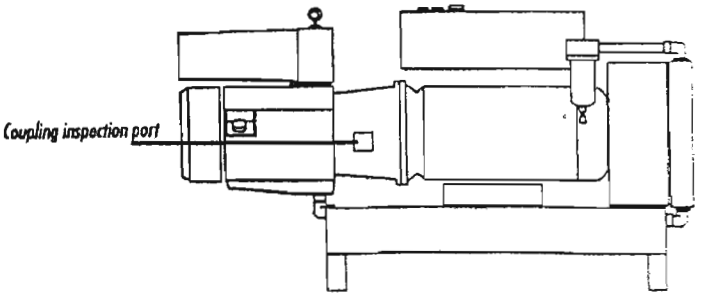
WARNING: Operating the compressor in the wrong direction will cause serious damage to the compressor

After installation and before starting the compressor, check the following:

1) The supply voltage must coincide with the motor voltage and current output, and the cables must be sized accordingly.
2) The machine must be grounded and protected against short circuits.
3) The main circuit breaker must be sized to suit the compressor and placed as near as possible to the compressor.
4) Check the compressor oil level with the compressor stopped and without pressure in the oil chamber. Oil level in the sight glass should show full. Top off is necessary to the correct level.
5) Energize the starter.

After connecting the compressor to the electrical supply and to the air system, check that the compressor rotation direction is in the direction of the arrow on the housing assembly. View the coupling assembly through the inspection port on the compressor bell housing. While watching the coupling assembly, press either the "AUTO" or "CONT" button to start the compressor, and after 2-3 seconds operation stop the compressor using the "EMERGENCY STOP" button. Correct compressor rotation is counterclockwise when viewed from in front of the compressor (at the intake filter end-see diagram).

Check compressor rotation direction carefully after connecting unit to electrical supply and the air system. Rotation should be counterclockwise when viewed from the front (air-end side) of the compressor.

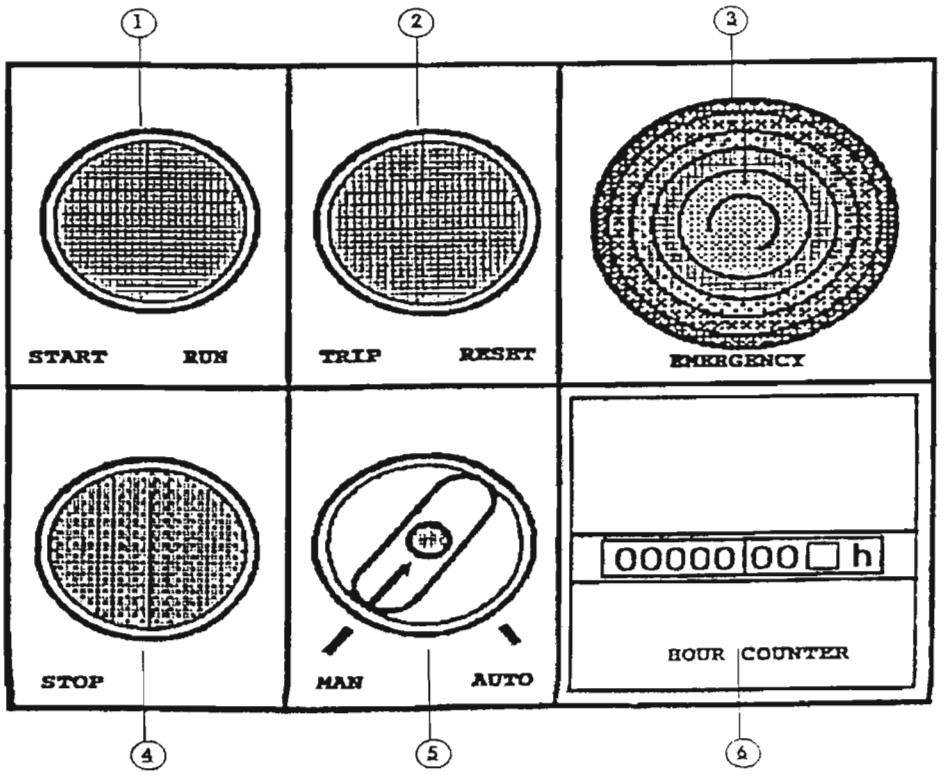


If the compressor is turning in the wrong direction, disconnect the starter from the electrical supply and electrically isolate the compressor unit. After the compressor has been electrically isolated, reverse two of the three phases. Repeat the starting procedure.

SECTION 4

CONTROL PANEL

Green button (1) **Start** This starts the compressor. The light switches on when compressor is operating and in case it stops during automatic operation.	Red button (4) **Stop** This stops the compressor. The light switches on when compressor is operating under no load and is going to stop.
Blue Button (2) **Trip/Reset** This resets the control circuit on shutdown (High Temperature, low oil level, main overload, or loss of main power).	Selector Switch (5) **Continuous/Automatic** This selects the operating mode. The neutral warning light indicates the starter has power to it.
Red mushroom button (3) **Emergency Stop** This stops the compressor. **It must be used only in case of emergency**	Hour Meter (6) Hour meter indicates the compressor operating hours ***For enclosed models only- Gauge** This indicates the air discharge pressure.


1
2
3
START
RUN
TRIP
RESET
EMERGENCY
STOP
MAN
AUTO
00000 00 h
HOUR COUNTER
4
5
6

CONTROLS

Off-load solenoid valve

- When it is activated, this valve sets the compressor off-load and decompresses the oil chamber to save power.

Servo valve

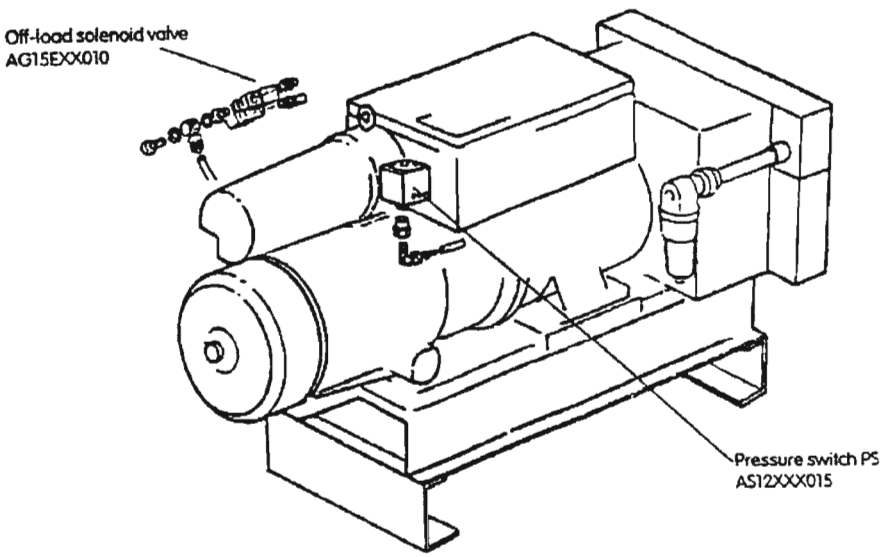
- A servo valve limits the maximum operational pressure in continuous mode, by closing the intake valve when inside pressure increases.

Pressure Switch PS (differential)

- Provides upper limit (PS max) for off-load setting during automatic operation.
- Provides lower limit (PS min) for load setting and restarting.

Timers setting (inside electric box)

- R2 Off-load timer (TMV), approx: ~4 minutes
- R3 Stop delay timer, approx: ~45 seconds

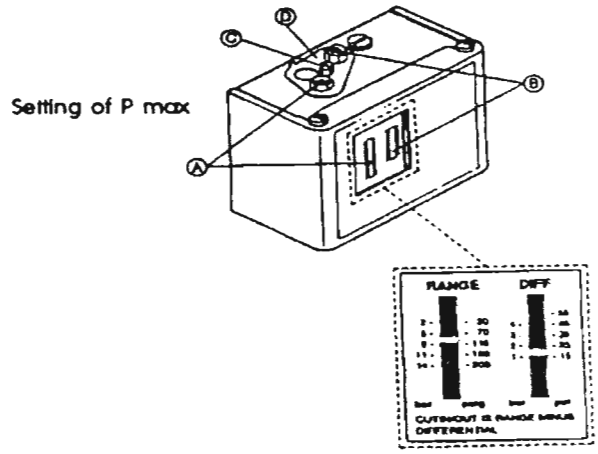


PRESSURE REGULATION-SERVO VALVE SETTING

Calibration of compressors

Automatic operation

PS maximum-maximum pressure setting
PS minimum-minimum pressure setting



Setting of the differential value:
determines P min

The compressor operates between these two values. When pressure reaches PS maximum the compressor begins to off-load and the timer R2 starts counting. If the line pressure reaches the PS minimum value before that timer R2 has timed out, the compressor begins to load. If the line pressure does not reach the value of PS minimum within the time of R2, the compressor will stop. The compressor will start again when the line pressure reaches the PS minimum value. Adjustment of the PS maximum value is made with a screwdriver on the "range" (A) setting screw after loosening the locking screw (C). Adjustment of the PS minimum can be set by acting on screw (B) and setting the differential "DIFF" value (pmin=Pmax-DIFF). When reaching the adjustment of the PS maximum value the compressor begins to off-load and the red light (3) in the control panel lights. You can read pressure on the gauge placed on the receiver, with the exhaust closed.

Servo valve setting

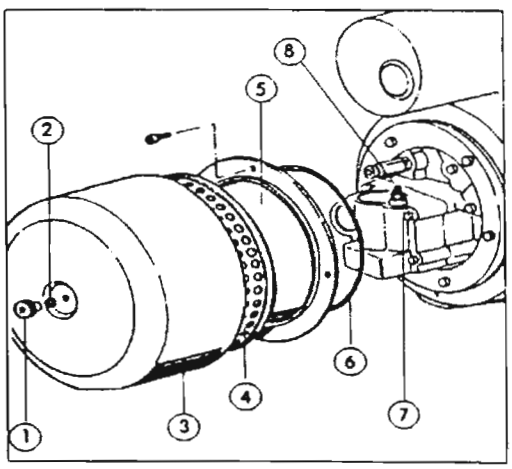
The maximum operating pressure is set during factory testing and normally needs no further adjustment. Should a slight adjustment be necessary, only properly trained personnel should perform this change. Do not raise servo pressure above factory setting. Motor damage will occur.

Place the mode selector on "continuous" and operate the compressor with the valve on the receiver outlet closed (if there is no air receiver, slowly close the air delivery valve until compressor reaches the maximum pressure). See chart for setting values.

Setting Values

Version	125 PSI Compressor	150 PSI Compressor
Servo valve	125 PSI	150 PSI
PS Maximum	122 PSI	147 PSI
PS Minimum	102 PSI	127 PSI

In case a different or new setting of the servo valve (not over the testing settings) proves necessary, act as follows:
Unscrew the lock nut (1) and remove the gasket (2) and cover (3). Take out the filtering element (4); remove the cover (5) and the o-ring (6). You gain access to the servo valve. Loosen the lock nut (8) and screw (to increase pressure) or unscrew (to decrease pressure) the screw (7) until reaching the desired pressure, and check the gauge on the separator assembly. Lock the screw by tightening the lock nut (8), refit the cover (5) and the o-ring (6) taking care the latter is not strained (otherwise replace it), then refit the filtering element (4). Refit the cover (3) and the gasket (2); screw the lock knob (1).



PROTECTIONS

High Temperature Switch

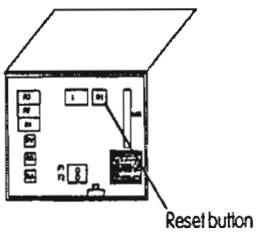
- The compressor is protected against excessive air temperature by a temperature switch. This device stops the compressor when the temperature reaches 110°C. To start the unit again, after eliminating the cause of the problem, wait until air temperature is back to normal, press the reset button then press the "START" button.

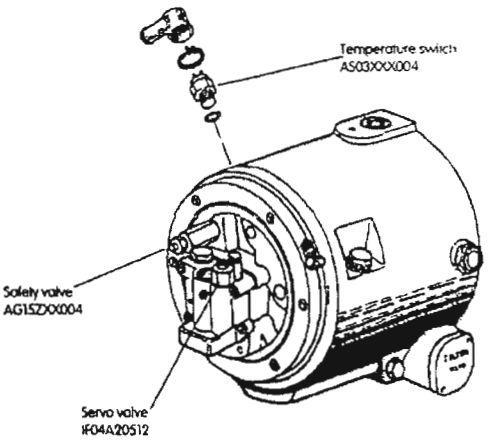
Safety Valve

- A safety valve is placed on the cover of the rotor stator unit, which operates in case of overpressure of the air inside chamber, and exhausts the excess pressure. Do not permit this condition to continue.

Main Motor Overload

- A thermal relay stops the machine in case of motor overload. To start the compressor again (after eliminating the cause of the problem) disconnect the unit by means of the main circuit breaker, open the starter box and press the relay reset button (RT). Close the starter box, reconnect main power and press the "START" button.





COMPRESSOR OPERATION

NOTE: Install a tank or fit an adequate compressed air distribution system when you operate in automatic mode to avoid frequent stops and starts.

Automatic Operation

In "automatic" operation, a further regulation is added: compressor off-load setting with internal decompression up to 1.5 bar. When air consumption is reduced for a set period of time the compressor will stop. The pressure switch controls the stopping and restarting. For "automatic" operation, a suitable air receiver must be fitted to prevent excessive cycling.

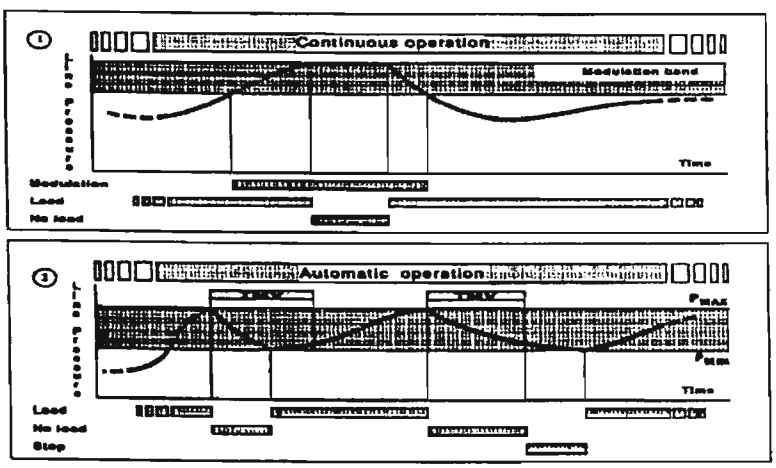
Attention

Select the operating mode (continuous or automatic) before starting the compressor. Do not change the operating mode during operation: compressor could stop immediately and cause injury.

Selecting the Operating Mode

The most appropriate operating mode can be chosen by means of the selector switch on the control panel.

Two different cases may occur, based on the different line pressure during compressor off-load running (see figure below).

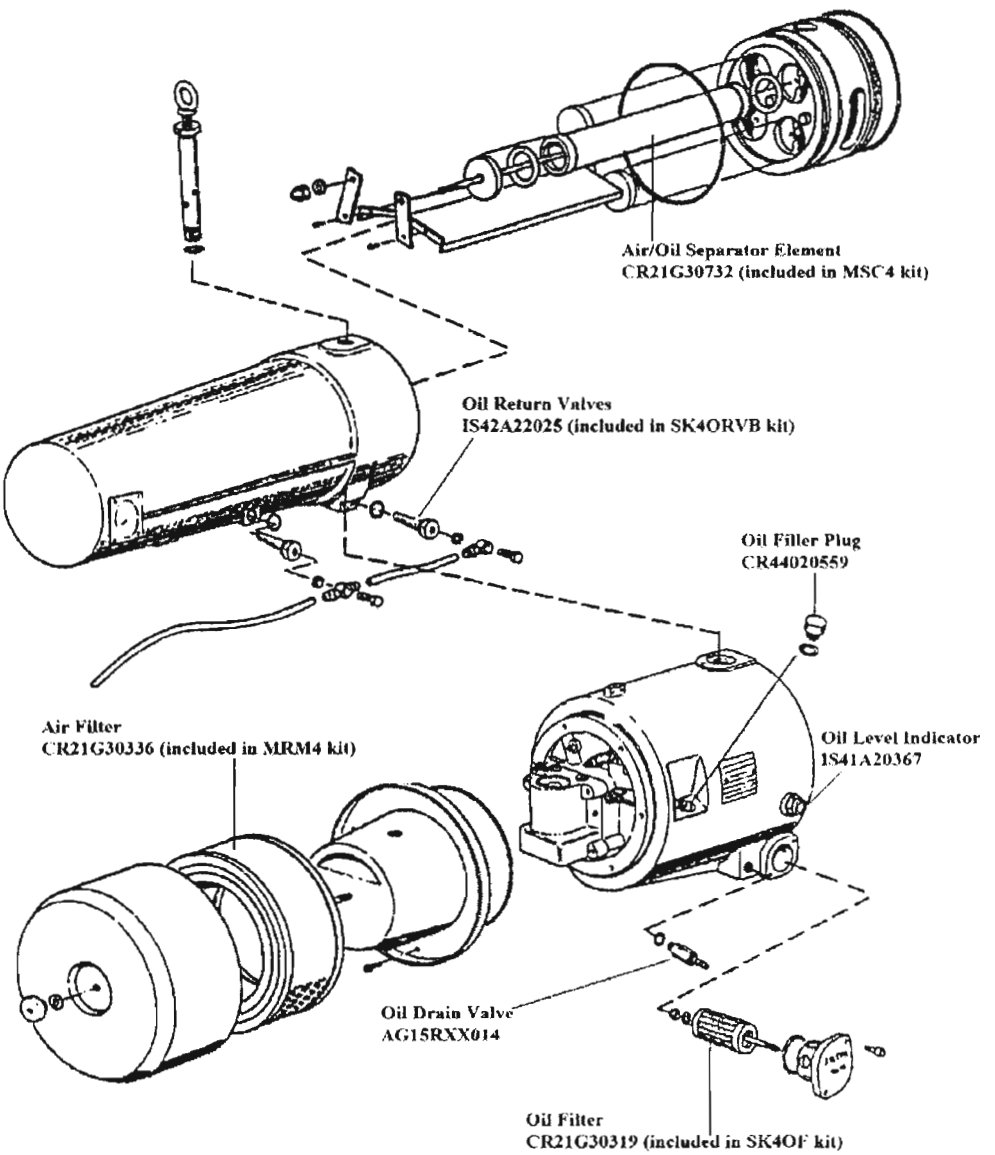


1. The pressure decreases to the value of PS min before the TMV (off-load running time) has expired: this will cause compressor turning to load up again.

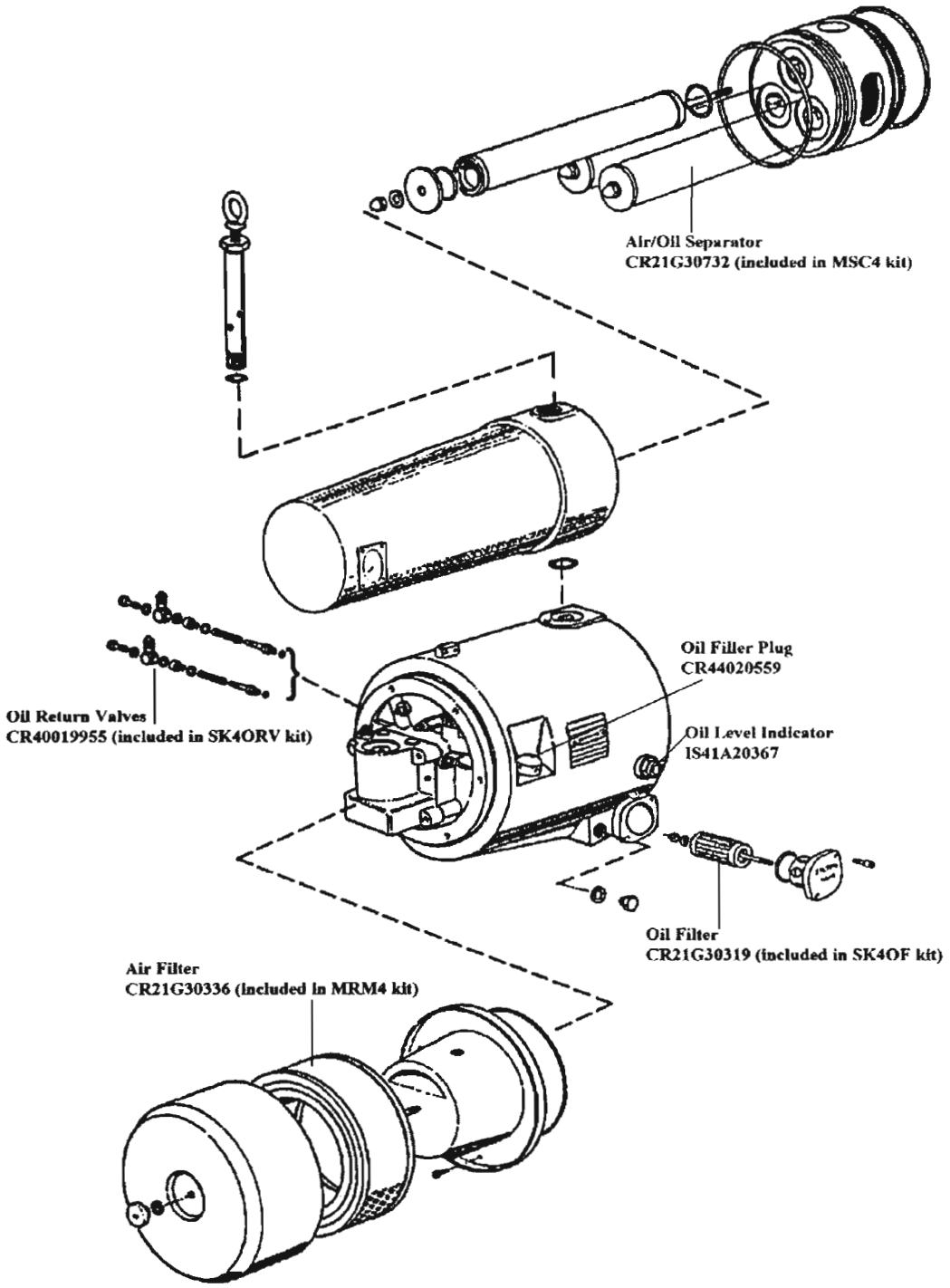
2. The TMV time expires before the pressure decreases to PS min. This causes compressor stopping and restarting when the value of PS min is reached.

SECTION 5

COMPRESSOR BREAKDOWN ERC/AC 1018/1022/1030



COMPRESSOR BREAKDOWN (OLD STYLE) EM/EMS 255/305/405

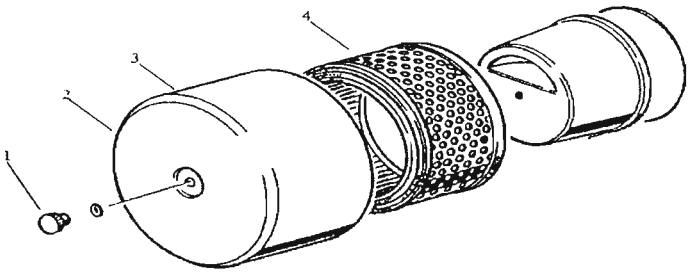


ROUTINE MAINTENANCE

Air Intake Filter

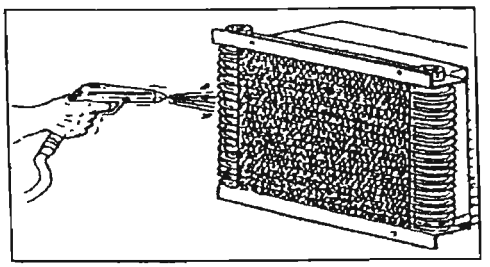
Every 2000 hours or 3 months: For standard duty cycle.
Clean the filter housing and cover with compressed air and replace the air filter.
(Cleaning the air filter every 2 weeks by blowing out with clean, dry air will prolong the life of the air filter).

Disassembly:
Unscrew the lock nut (1) remove the gasket (2) and cover (3). Lift out the filter element (4).
Reassembly: Reverse the disassembly order.



Air/Oil Cooler

Every 80 hours or 2 weeks: For standard duty cycle.
The cooler fins must be cleaned thoroughly and blown out. A blocked cooler will cause the compressor to overheat. Excessive oil temperature will activate the temperature switch and stop the compressor.



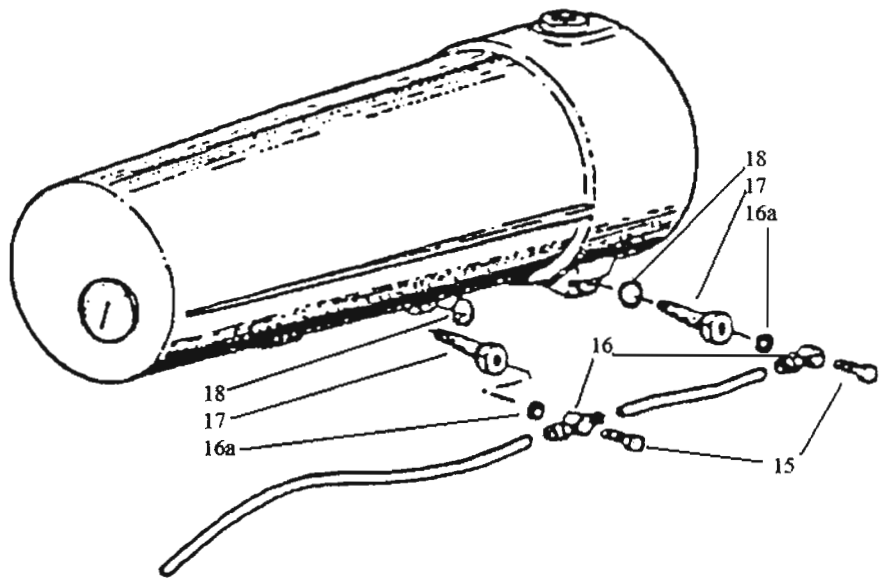
Blowing out the cooler

Oil Return Valves (ERC/AC 1018/1022/1030

Every 2000 hours or 3 months: For standard duty cycle.
Clean the sintered filters with detergent and blow out with compressed air. Replace if necessary.

Disassembly:
Unscrew the screws (15) locking unions (16) of the oil return flexible pipes. Then, with the set screw wrench, lift out the unions with flexible pipes (16). Be careful not to lose the metallic seal washers (16a), unscrew and extract the filters (17).

Assembly:
Always replace o-rings (18). Reverse disassembly order.



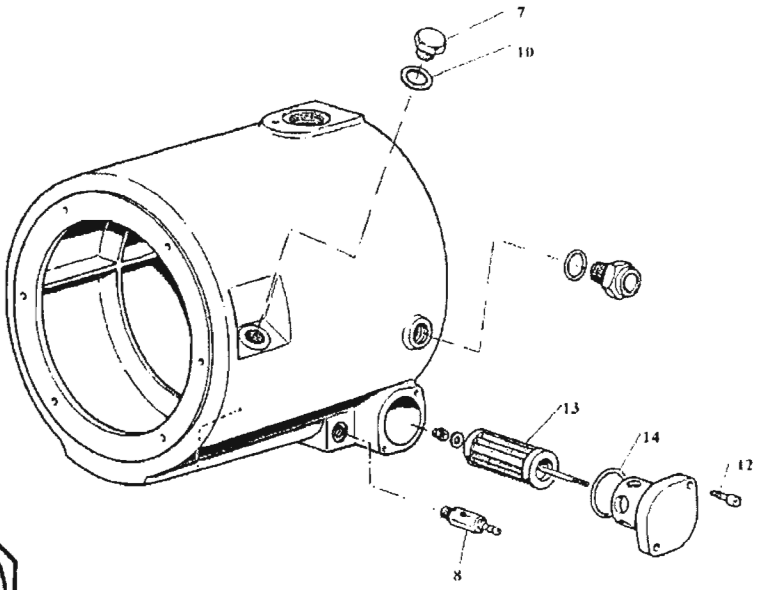
Oil Change

Note: *Oil should be changed with the compressor hot.*

1) Relieve all pressure from the system, and wait until the pressure gauge reads zero.
2) Disconnect the compressor from the main power and electrically isolate the unit.
3) Slowly unscrew the oil filler plug (1), ensuring that no foam (air/oil foam) escapes from the hole.
4) Open the manual drain (3) at the bottom of the oil chamber, near the oil filter housing. Drain the oil into a suitable container and dispose of properly.
5) Close the manual drain (3).

6) The oil filter should be cleaned at every oil change. Remove the screws (4) holding the filter cover in place.
7) Remove the filter cover by rotating it 90° and pull it gently out of the compressor.
8) Remove the filter (7) from the cover and clean it using a non-flammable solvent. Allow filter to dry or blow dry using compressed air.
9) Clean the oil filter seat on the oil filter cover (5) and replace the o-ring (6).
10) Refit cleaned and dried oil filter to the filter seat on cover, and replace assembly in compressor, tightening screws (4).
11) Fill the compressor sump to the bottom of the fill plug threads.
12) Replace fill plug seal (2) and replace and tighten the filler plug (1).
13) Operate the compressor for several minutes, then check the oil lever and top off if necessary.

****The oil filter (6) can be cleaned and reused.*



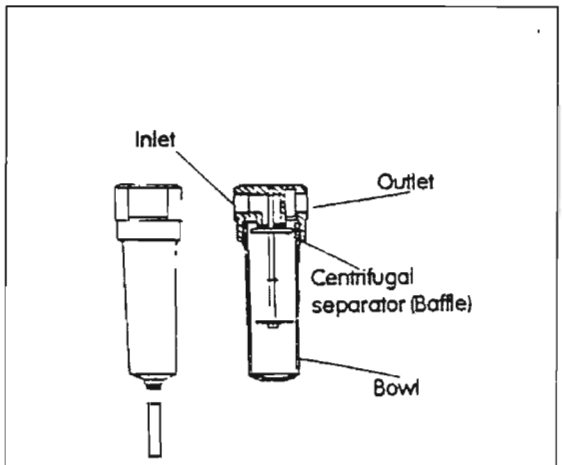
Oil level sight glass should have oil visible

Condensate Drain

The condensate drain is an automatic drain, which operates by means of a float valve to remove accumulated water, which condenses during the compression of moisture-laden air.
Check the drain periodically to ensure that the sensor is not blocked, which will prevent the discharge of the condensate.

With the compressor stopped.

1) Unscrew the union under the bowl.
2) Blow out the assembly with compressed air.
3) Clean the bowl and centrifugal separator (baffle).
4) Reassemble by refitting the bowl to the seat and reattaching the union with the condensate drain valve to the bottom of the bowl.



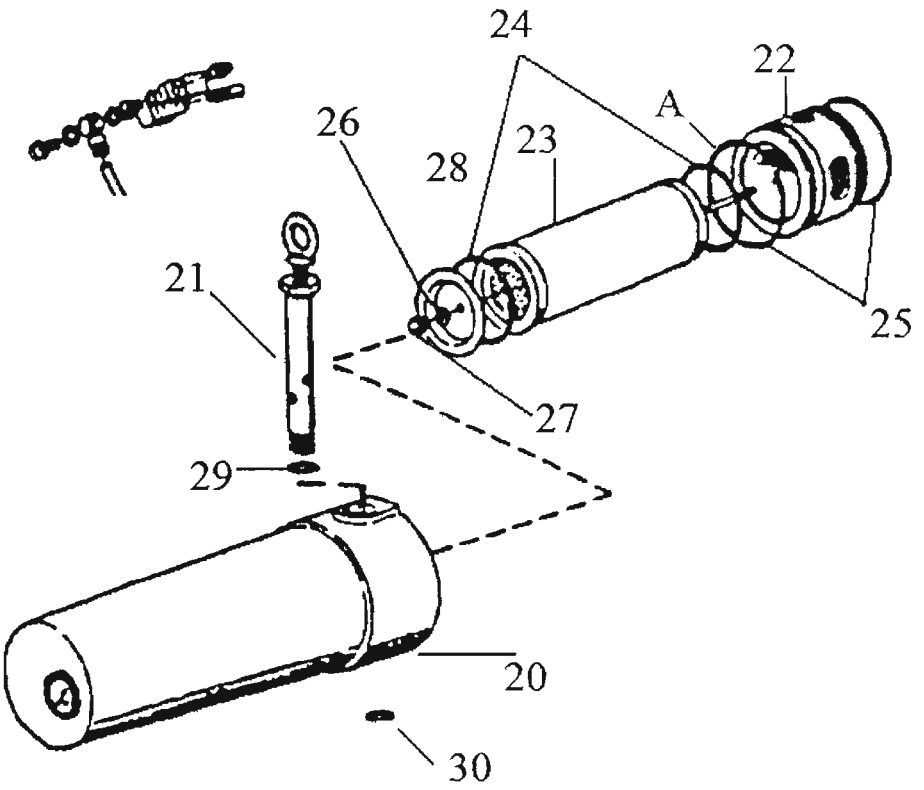
CONDENSATE SEPARATOR ASSEMBLY

Separator Elements

Every 10,000 hours or 15 months: For standard duty cycle.

Disassembly:
Disassemble the off load solenoid valve connector, placed behind the separator assembly (20) and detach the pipe. Detach the oil return valve pipes. Detach the air delivery pipe. Unscrew the separator assembly fixing screw (21) and take it out. Lift out the cover (22) where the separator element is fixed, by levering with two screwdrivers in the cover circular slot. Unscrew the lock nut (27) and lift out the fixing cover (28) and the element (23).

Assembly:
Replace the element (23). Replace seal rings (24-25-26-29-30). Reassemble all components, taking care that rings (24) are perfectly centered with the seats. A small grease quantity could help you. Insert the lock cover (28) with ring (26) and tighten the components by means of the nut (27). Insert the assembly into the separator body (20); the opening with the letter "A" must be positioned as shown in figure. Refit the separator on the chamber by means of the screw (21). Connect the solenoid valve connector and relevant pipe. Connect the air delivery and oil return valve pipes.



FAULT FINDING GUIDE

The troubleshooting guidelines are made to assist in the diagnosis of problems that may occur on Mattei compressors. They provide solutions to the most common problems. They are not a listing of all potential problems.

If the answer to your problem is not listed in the guide please contact your Mattei Authorized Distributor or the Mattei Technical Support Group. The Mattei Technical Support Group can be reached between 8:30am-5:00pm Eastern Time. Our contact information is as follows:

Phone: 410-521-7020
Fax: 410-521-7024
Email: info@matteicomp.com

When calling for phone support, please have the following information available to assist us in solving your problem:

1. Model number
2. Serial number
3. Operating voltage
4. Description of the problem
5. Description of any repairs attempted

Symptom	Cause	Remedy
Compressor will not develop pressure	1. Intake filter clogged 2. Off-load valve leaking 3. Servo valve not set properly 4. Vanes stuck in slot	1. Change intake filter 2 Clean or rebuild valve 3 Clean or rebuild valve 4. Contact factory
Compressor will not start	1. No power to machine 2. Thermal overloads tripped 3 Safety device tripped	1 Turn on power supply 2 Determine reason for tripping Correct problem and reset overload 3 Determine reason for tripping and correct problem
High temperature shutdown of compressor	1. Cooler blocked 2. Low oil level 3. Dirty oil 4. Oil filter clogged 5. High ambient temperature 6. Separator(s) clogged	1. Clean cooler 2. Fill sump to proper level 3. Change oil and filter 4. Change oil filter 5 Reduce ambient temperature 6. Replace separator(s)
Oil in discharge air stream	1. Separator element loose or damaged 2 Oil return valve (s) clogged 3. Oil level to high	1. Replace or tighten element 2 Clean or replace valve(s) 3 Drain oil to proper level
Moisture in discharge air stream	1. Condensate drain valve not working 2. Cooler blocked 3 High ambient humidity	1 Clean or repair drain valve 2 Clean cooler 3 Treat ambient air or install air dryer
Water in oil	1. Ambient air temperature too low 2. Thermostatic bypass valve not functioning properly	1. Increase ambient air temperature 2. Rebuild thermostatic bypass valve

Service	Interval	Parts Necessary
Check oil level	Daily	Top off with Mattei Rotoroil 8000F2* if necessary
Check condensate separator	Weekly or every 50 hours**	
Clean intake filter	Every 2 weeks or 80 hours **	Blow out with compressed air
Change intake filter	Every 3 months or 2000 hours**	MRM4 Routine Maintenance Kit
Clean cooler	Every 2 weeks or 80 hours	Blow out with compressed air
Change oil	Every 6 months or 4000 hours**	MRM4 Routine Maintenance Kit. Fill with Mattei Rotoroil 8000F2*
Clean oil filter during every intake filter change	Every 3 months or 2000 hours**	Gaskets and o-rings needed are included in MRM4 Routine Maintenance Kit
Clean oil return valves	Every 3 months or 2000 hours**	Seals and o-rings are included in MRM4 Routine Maintenance Kit
Change oil separator elements	Every 15 months or 10,000 hours**	MSC4 Separator Change Kit

NOTE: Break-in oil should be changed after the first 400 operating hours. Clean the oil filter and oil return valves after the first 400 operating hours.

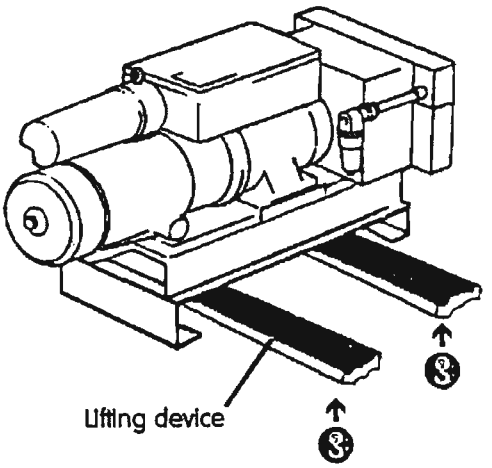
*Mattei Rotoroil 8000F2 is recommended for use in Mattei Rotary Vane Compressors, and is required for warranty coverage. When doing oil changes always send oil samples to Mattei for analysis to ensure the compressor is performing at its best with no contaminants.

Mattei offers Rotoroil 8000F2 in 1, 5, and 55 gallon containers.
(The ERC/AC 1018/1022/1030 requires 3 gallons)

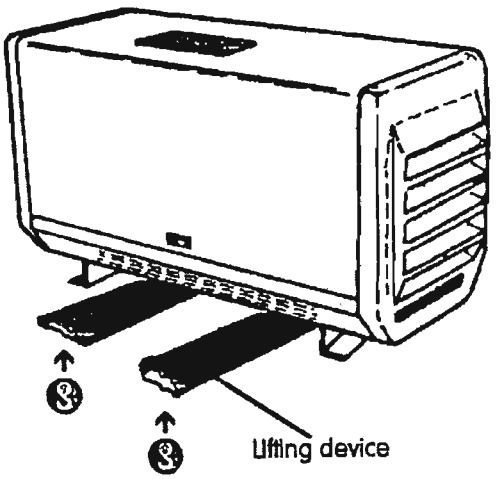
**Whichever occurs first. More frequent changes may be necessary depending on operating conditions. Consult you Mattei Authorized Distributor to determine specific service intervals for your application

TRANSPORT AND LIFTING

If the need arises to lift or transport the compressor, the indicated lifting points must be strictly adhered to. Lifting or transporting the compressor by use of any other point can seriously damage the unit. Lifting points for all models are as indicated.



Lifting points for ERC models:



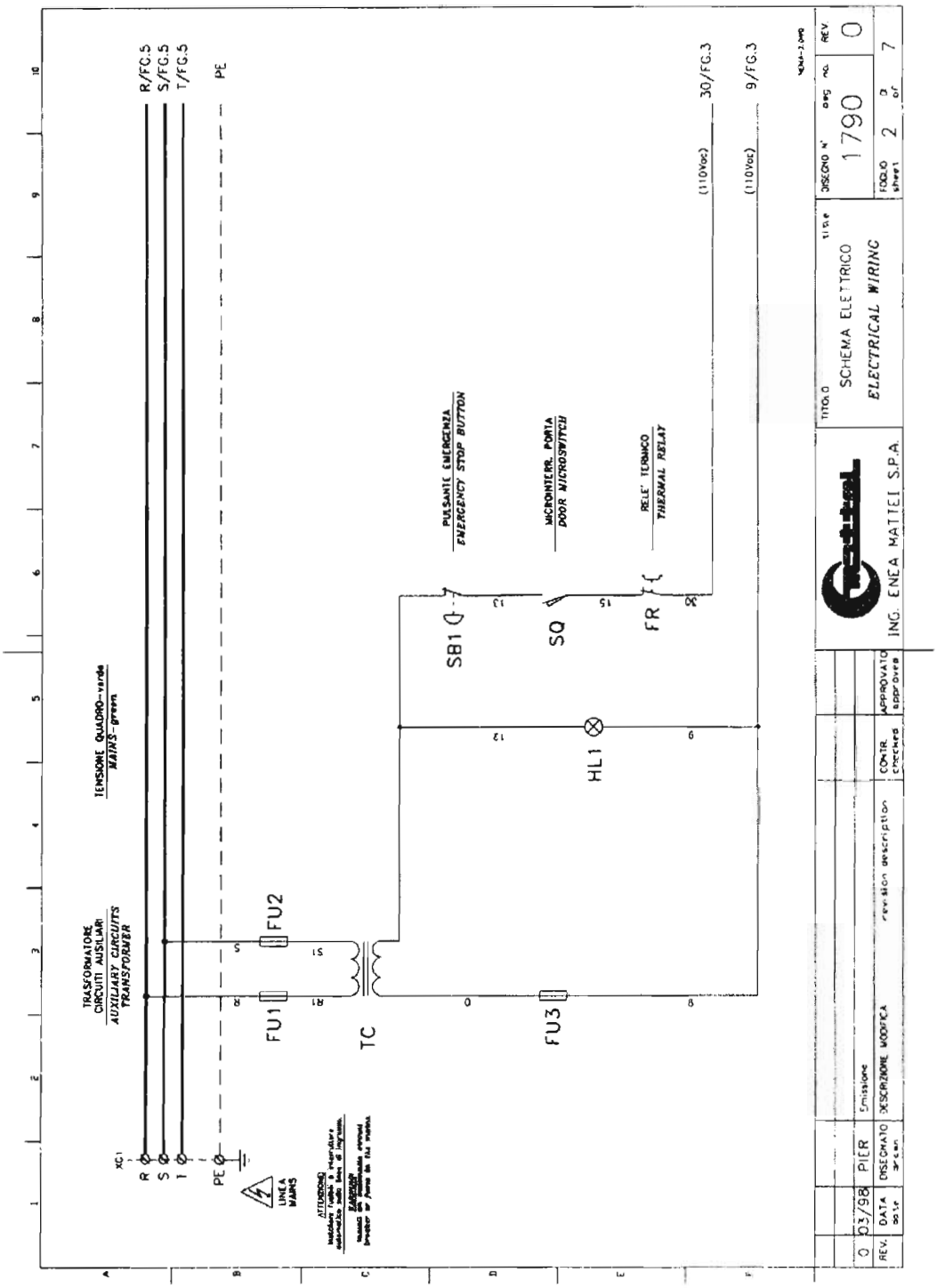
Lifting points for AC models:

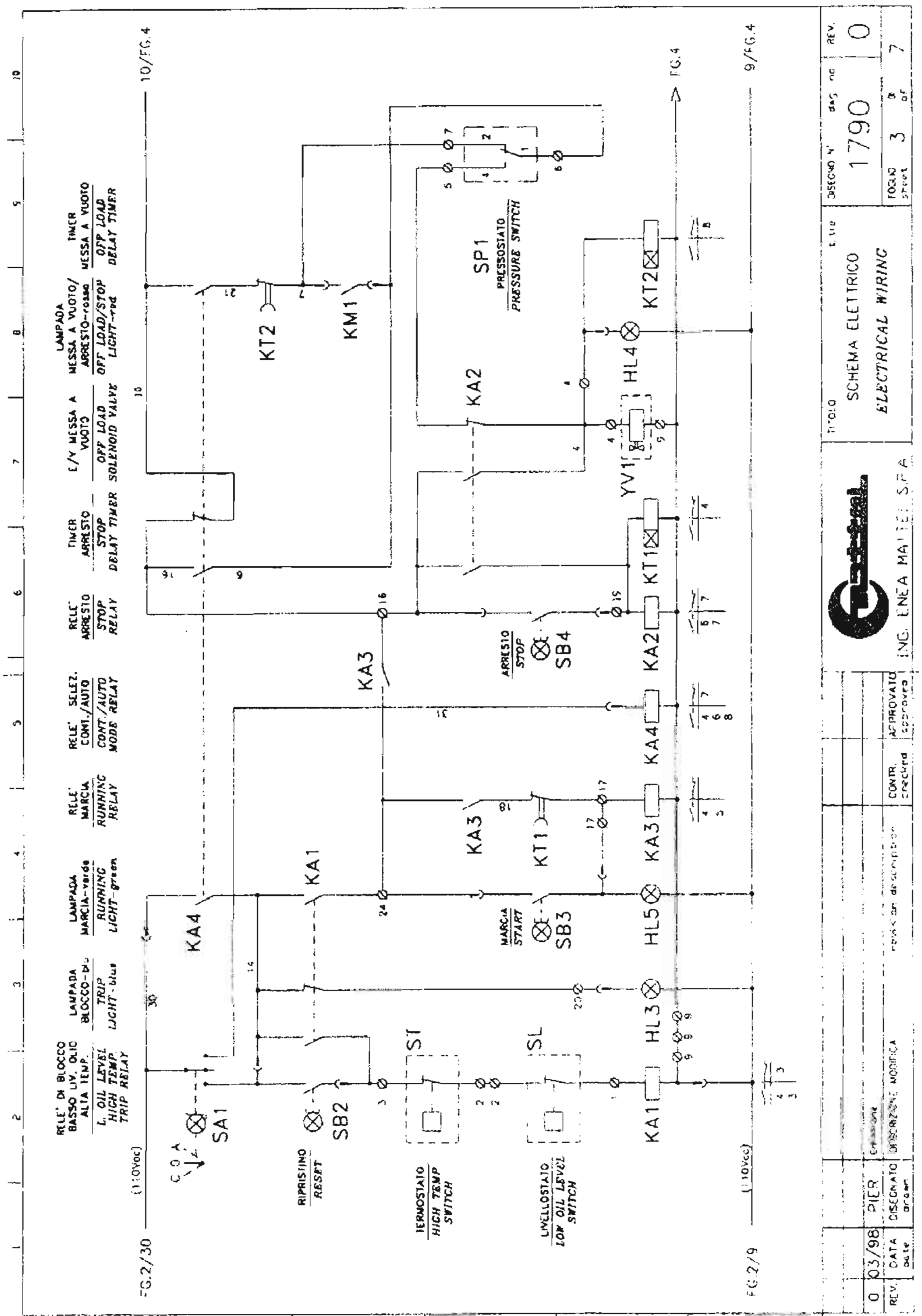
Electrical Schematics/Electrical Box Diagrams

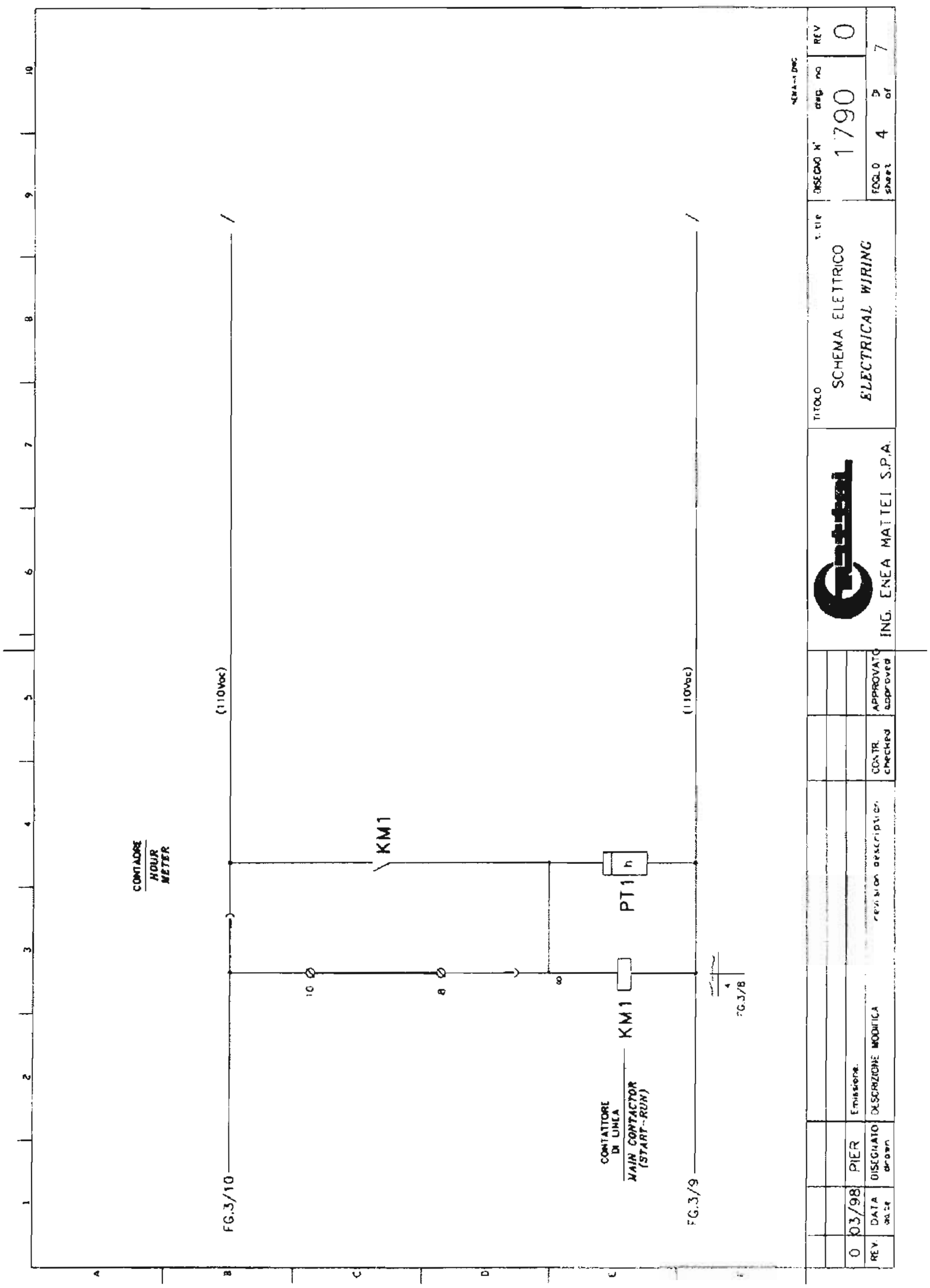
ERC/AC 1018

ERC/AC 1022

ERC 1030


R/FG.5
S/FG.5
T/FG.5
PE
TRASFORMATORE CIRCUITI AUSILIARI
AUXILIARY CIRCUITS TRANSFORMER
TENSIONE QUADRO-verde
MAINS-green
FU1
FU2
FU3
TC
SB1
PULSANTE EMERGENZA
EMERGENCY STOP BUTTON
SQ
MICROINTERR. PORTA
DOOR MICROSWITCH
FR
RELE' TERMICO
THERMAL RELAY
HL1
(110Vac)
30/FG.3
9/FG.3
LINEA
MAINS
SCHEMA ELETTRICO
ELECTRICAL WIRING
ING. ENEA MATTEI S.P.A.
DISEGNO N°
1790
FOGLIO
sheet
2 of 7
REV.
0
03/98
PIER
Emissione


SCHEMA ELETTRICO
ELECTRICAL WIRING
1790
SP1
PRESSOSTATO
PRESSURE SWITCH
KT2
KM1
KA2
HL4
YV1
KT1
KA3
SB4
KA4
KA1
HL5
SB3
HL3
SB2
SA1
ST
SL
TERMOSTATO
HIGH TEMP SWITCH
LIVELLOSTATO
LOW OIL LEVEL SWITCH
RIPRISTINO
RESET
MARCIA
START
ARRESTO
STOP
(110Vac)
FG.2/30
FG.2/9
10/FG.4
9/FG.4
FG.4
PIER
03/98
ING. LINEA MATTEI S.P.A.


CONTATORE
HOUR METER
CONTATTORE DI LINEA
MAIN CONTACTOR (START-RUN)
KM1
KM1
PT1
h
(110Vac)
(110Vac)
FG.3/10
FG.3/9
FG.3/8
10
8
8
TITOLO
SCHEMA ELETTRICO
ELECTRICAL WIRING
ING. ENEA MATTEI S.P.A.
DISEGNO N° dwg. no
1790
REV
0
FOGLIO sheet
4
of
7
0
03/98
PIER
Emissione
REV
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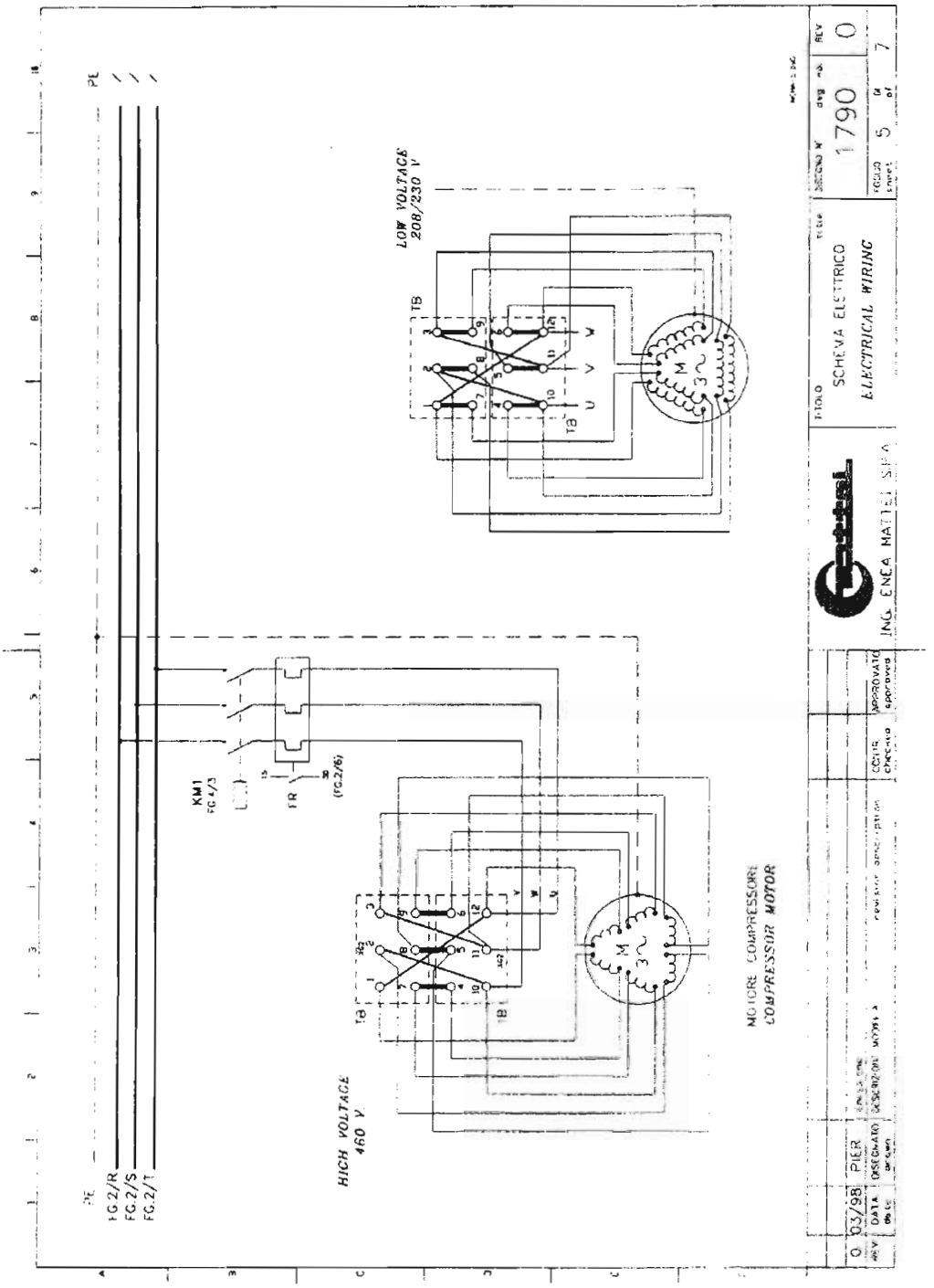
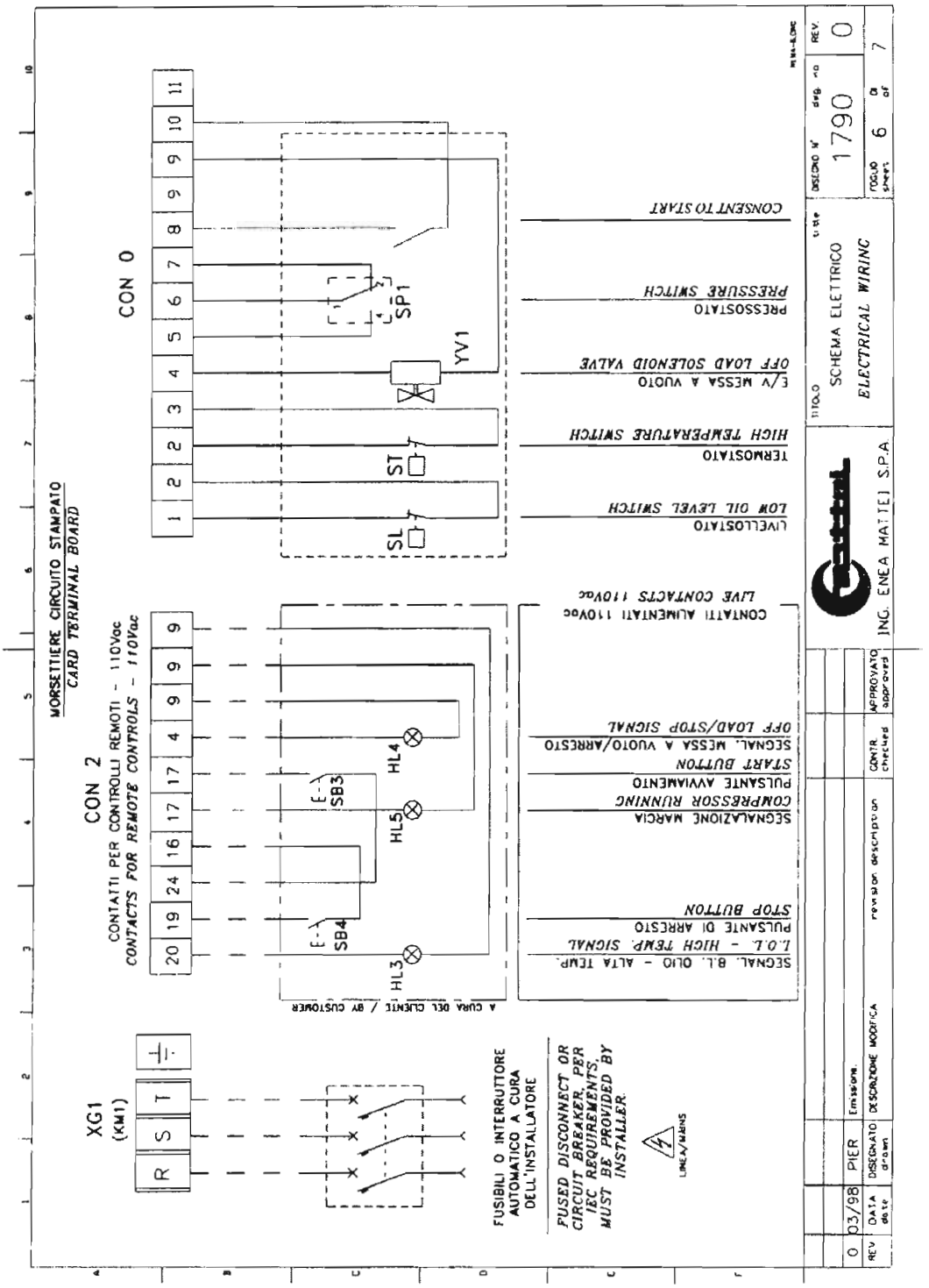
revision description
CONTR. checked
APPROVATO approved


FG.2/R
FG.2/S
FG.2/T
KM1
FG 4/3
(FG.2/6)
HIGH VOLTAGE
460 V
LOW VOLTAGE
208/230 V
MOTORE COMPRESSORE
COMPRESSOR MOTOR
SCHEMA ELETTRICO
ELECTRICAL WIRING
1790
ING. ENEA MATTEI S.P.A.


MORSETTIERE CIRCUITO STAMPATO
CARD TERMINAL BOARD
CON 2
CONTATTI PER CONTROLLI REMOTI - 110Vac
CONTACTS FOR REMOTE CONTROLS - 110Vac
20 19 24 16 17 17 4 9 9 9
CON 0
1 2 2 3 4 5 6 7 8 9 9 10 11
XG1
(KM1)
R S T
SB3
SB4
HL3
HL4
HL5
SL
ST
SP1
YV1
A CURA DEL CLIENTE / BY CUSTOMER
FUSIBILI O INTERRUTTORE AUTOMATICO A CURA DELL'INSTALLATORE
FUSED DISCONNECT OR CIRCUIT BREAKER, PER IEC REQUIREMENTS, MUST BE PROVIDED BY INSTALLER.
LINEA/MAINS
CONTATTI ALIMENTATI 110Vac
LIVE CONTACTS 110Vac
SEGNAL. B.L. OLIO - ALTA TEMP.
L.O.L. - HIGH TEMP. SIGNAL
PULSANTE DI ARRESTO
STOP BUTTON
SEGNALAZIONE MARCIA
COMPRESSOR RUNNING
PULSANTE AVVIAMENTO
START BUTTON
SEGNAL. MESSA A VUOTO/ARRESTO
OFF LOAD/STOP SIGNAL
LIVELLOSTATO
LOW OIL LEVEL SWITCH
TERMOSTATO
HIGH TEMPERATURE SWITCH
E/V MESSA A VUOTO
OFF LOAD SOLENOID VALVE
PRESSOSTATO
PRESSURE SWITCH
CONSENT TO START
TITOLO
SCHEMA ELETTRICO
ELECTRICAL WIRING
ING. ENEA MATTEI S.P.A.
DISEGNO N° 1790
FOGLIO sheet 6 di of 7
REV. 0
REV 0 DATA date 03/98 DISEGNATO drawn PIER Emissione
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CONTR. checked
APPROVATO approved