



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised re-cycling agent. This will allow the recycling of raw materials and help protect the environment.

MANUAL USE AND MAINTENANCE



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CONTENTS

INFORMATION FOR THE USER

GENERAL CHARACTERISTICS
INTENDED USE
OPERATION
GENERAL SAFETY STANDARDS
DESCRIPTION OF DANGER SIGNALS
DANGER ZONES
SAFETY DEVICES
POSITION OF PLATES
COMPRESSOR ROOM
TRANSPORT AND HANDLING
UNPACKING
INSTALLATION
DIMENSIONS AND TECHNICAL DATA
MACHINE ILLUSTRATION
MAINTENANCE SCHEDULE
PERIODS OF INACTIVITY
SCRAPPING THE UNIT
LIST OF SPARE PARTS FOR ROUTINE MAINTENANCE
TROUBLE-SHOOTING AND EMERGENCY REMEDIES

35 ÷ 40 N. m	For PROSIL HP 4
55 ÷ 60 N. m	For PROSIL HP 5,5
95 ÷ 100 N. m	For PROSIL HP 7,5 - 10

CHECKING BELT TENSION

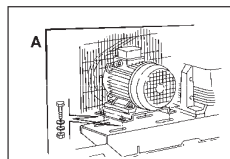
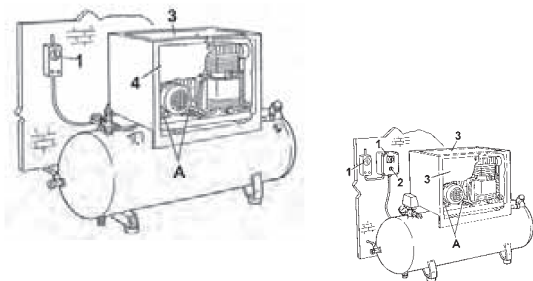
- Stop the machine, turning in "0" position the isolating switches Ref. 1 and 2 Fig. 15
- Stop the machine, on the pressureswitch pressing button Ref. 1 fig 12
- Turn on the supply automatic differential switch Ref. 11 Fig. 15.



HOT PARTS

- Remove the panel Ref. 3 Fig. 15 with the key provided
- Remove the protection.
- Adjust or replace the belts, turning the screws Part. A as required.
- Close the protection.
- Close the panel Ref. 3 Fig. 15.
- Chiudere i pannelli Rif. 3 Fig. 15.

FIG. 15

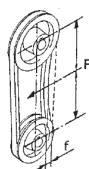


- In the event of transmission with several belts, they must all be replaced.
- When changing the belts, pay attention to the alignment of the pulleys.

F= 37-40 N. (3,8 ÷ 4,1 Kg.) Per PROSIL HP4-5,5-7,5-10
(Force be applied at the centre line, at right angles to the belt.)

f= 6mm clearance after the application of F.

FIG.

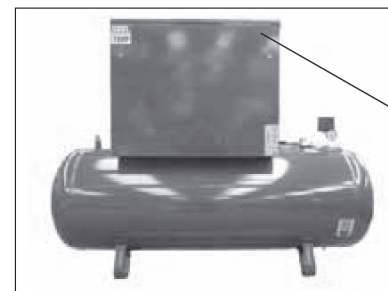


ELECTROCOMPRESSOR UNITS

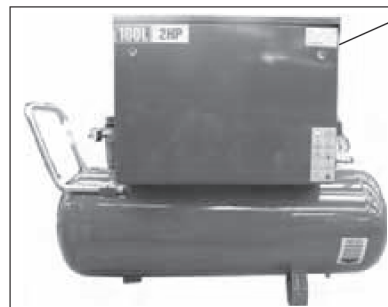
PROSIL

MACHINE AND MANUFACTURER IDENTIFICATION DATA

FIG. 1



		CE
ANNO Year	SERIE - Series	MODELLO - Model
TENSIONE Voltage	FREQUENZA Frequency	POTENZA kW Power
RUMOROSITA' Noise	SERBATOIO Tank	POTENZA HP Power
	GRUPPO Pump	PRESSIONE Pressure
		Serial Number
DIRET. 2006/42 CEE, DPR 81/2008		



Position of the identification plate fig. 1

ADDRESSES OF ASSISTANCE CENTRES

In the event of breakdown or malfunction of the machine, switch it off and do not tamper with it.
If repairs are needed, apply only to a technical assistance centre approved by the manufacturer and insist on the use of original spare parts.
Failure to comply with the above may endanger the safety of the machine.

INTRODUCTION

Keep this manual with care for future consultation; the use and maintenance manual is an integral part of the machine. Read this manual carefully before carrying out any operations on the compressor
The installation of the compressor and all operations involving it must be performed in conformity with the regulations in force concerning electric plants and personal safety.

CHARACTERISTICS AND SAFETY PRECAUTIONS

MACHINE WITH AUTOMATIC RESTART



BEFORE REMOVING THE PROTECTIVE GUARDS TO CARRY OUT ANY MAINTENANCE ON THE MACHINE, SWITCH OFF THE ELECTRIC POWER SUPPLY AND DISCHARGE THE RESIDUAL PRESSURE INSIDE THE UNIT.

ALL WORK ON THE ELECTRIC PLANT, HOWEVER SLIGHT, MUST BE CARRIED OUT BY PROFESSIONALLY SKILLED PERSONNEL.

The manufacturer does not accept responsibility for damage caused as a result of negligence of failure to abide by the instructions given above.

THIS MACHINE IS NOT SUITABLE FOR EXTERNAL INSTALLATION

THIS MACHINE CORRESPOND TO THE ESSENTIAL SAFETY REQUIREMENTS FORESEEN FROM THE EUROPEAN STANDARD 2006/42 CEE AND THE RULE EN 292

1.0 GENERAL CHARACTERISTICS

The compressor unit is composed of the compressor, the motor, the safety, command and control devices. Efficient cooling of the compressor is achieved by means of a stream of air conveyed by the blades of the flywheel onto the finned cylinders and the heads.
 The pistons are coupled to the con-rods by means of floating pins in hardened steel.
 The pistons in single-stage compressors and the low-pressure pistons in two-stage models are made of cast aluminium, while the high-pressure pistons are made of cast iron.
 Each piston has a scraper ring and a seal.
 The suction and delivery valves have multiple passage with consequent low air speed, guaranteeing safe and silent operation.
 The reed of each valve is held in place on the valve plate. Each cylinder has suction and delivery valves.
 The cooler is of the type with air cooling, composed of an enbloc structure with horizontal fins through which heat exchange is accomplished.

The compressor unit is completely assembled in the factory.
 The connections necessary for starting up are:
 ● connection to the power mains (see installation chapter)
 ● connection to the compressed air network (see installation chapter)

2.0 INTENDED USE

The compressor has been built to supply compressed air for industrial use.
 The machine cannot be used in premises where there is a risk of fire or explosion or where work is carried out which releases substances into the environment which are dangerous with regard to safety (for example: solvents, inflammable vapours, alcohol, etc.).
 In particular the appliance cannot be used to produce air to be breathed by humans or used on direct contact with foodstuffs. These uses are allowed if the compressed air produced is filtered by means of a suitable filtering system (Consult the manufacturer for these special uses).
 This appliance must be used only for the purpose for which it was specifically designed.
 All other uses are to be considered incorrect and therefore unreasonable.
 The Manufacturer cannot be held responsible for any damage resulting from improper, incorrect or unreasonable use.

3.0 OPERATION

Operation is automatic. The pressure switch stops the motor at the maximum set pressure and starts it again at minimum pressure.
Never stop the compressor by removing the electric plug from the socket; always use the stop control.

4.0 GENERAL SAFETY STANDARDS

The appliance may be used only by specially trained and authorized personnel.
 Any tampering with the machine or alterations not approved beforehand by the Manufacturer relieve the latter of responsibility for any damage resulting from the above actions.
 The removal of or tampering with the safety devices constitutes a violation of the European Standards on safety.

ATTENTION: UPSTREAM OF THE MACHINE INSTALL AN ISOLATOR KNIFE-SWITCH WITH AN AUTOMATIC CUTOFF AGAINST CURRENT SURGES AND EQUIPPED WITH A DIFFERENTIAL DEVICE SET AT 30 mA, FOR THE SETTINGS SEE THE WIRING DIAGRAM.

! ALL WORK ON THE ELECTRIC PLANT, HOWEVER SLIGHT, MUST BE CARRIED OUT BY PROFESSIONALLY SKILLED PERSONNEL.

18.0 LIST OF SPARE PARTS FOR ROUTINE MAINTENANCE

1) Suction filter air

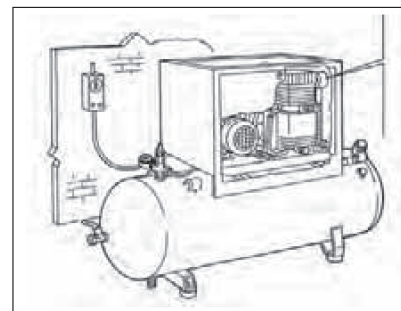
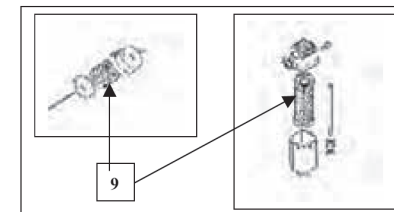


FIG. 14



19.0 TROUBLE-SHOOTING AND EMERGENCY REMEDIES

! ALL WORK MUST BE CARRIED OUT BY PROFESSIONALLY SKILLED PERSONNEL. BEFORE CARRYING OUT ANY MAINTENANCE JOBS IT IS OBLIGATORY TO STOP THE MACHINE AND DISCONNECT IT FROM THE POWER MAINS.

N.B. OPERATIONS MARKED ■ ■ MUST BE CARRIED OUT BY PROFESSIONALLY SKILLED PERSONNEL APPROVED BY THE MANUFACTURER.

FAULT FOUND	POSSIBLE CAUSES	OBSERVATIONS
1) The machine does not start	- the motor thermal protection relay has tripped.	- reset the thermal protection (modd. with switching board only) - push start button
2) The machine starts but there is an air leakage from the discharge pipe	- faulty discharge electrovalve (only modd. with electric panel) - defective pressure switch start valve.	■ ■ - check the electrovalve
3) The machine has difficulty in starting	- faulty no-return valve - check no-return valve	■ ■ - faulty discharge electrovalve ■ ■ - check the electrovalve ■ ■ - change it if necessary

20.0 STARTING UP

! MACHINE WITH AUTOMATIC START. BEFORE CARRYING OUT ANY OPERATION ON THE MACHINE, ENSURE THAT THE ELECTRIC POWER SUPPLY HAS BEEN DISCONNECTED.

Check that the oil level is between the two values (min. and max.) marked on the rod on the casing. Before starting the electrocompressor for the first time it is advisable to check that all the parts turn freely. To start the machine you need to push the button on the cap of the pressure switch or the button on the starter cabinet. **The compressor PROSIL should turn in anticlockwise direction, looking at the unit from the opposite side of the belt coupling.**
TESTING THE PRESSURE SWITCH
 Start the electrocompressor with the delivery tap turned off. When the max. set pressure value of the pressure switch is reached the electrocompressor must stop automatically. Turn on the tap and check that it starts automatically when the min. set pressure valve of the pressure switch is reached.
20.1 TIGHTENING TORQUE
 After the first 50 hours' operation it is advisable to check the tightening torque of the head screws.
 Torque values:

15.3 CHANGING THE FILTER AIR

- Stop the machine, on the pressure switch pressing button Ref. 1 fig 12



HOT PARTS

- Remove the panel Ref. 3 Fig. 12 with the key provided
- Unscrew the retaining nut Ref. 9 Fig. 12.
- Remove the cover Ref. 8 and the cartridge Ref. 7 Fig. 12, and replace it with a new one or clean it with a jet of air blowing from inside to outside. **DO NOT USE SOLVENTS.**
- Fit the cover and fasten the nut
- Close the panel Ref. 3 Fig. 12.

15.4 CHANGING THE OIL

- Stop the machine, turning in "0" position the isolating switches Ref. 1 and 2 fig. 12
- Stop the machine, on the pressureswitch pressing button Ref. 1 fig 12
- Turn on the supply automatic differential switch Ref. 11 Fig. 12.



HOT PARTS

- Remove the panel Ref. 3 Fig 12 with the key provided.
- The oil must be changed when the motor is warm, that is immediately after stopping.
- Drain the oil by means of the plug Ref. 5 Fig. 12.
- Close the plug Ref. 5 Fig. 12.
- Fill to maximum level with oil of the same type as that in the compressor.



USE OIL OF THE SAME TYPE AS THAT ALREADY IN THE MACHINE; DO NOT MIX DIFFERENT TYPES OF OIL.

- Close the plug Ref. 4 fig. 12
- Close the panel Ref. 3 Fig. 12.



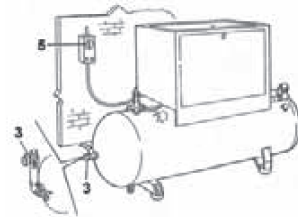
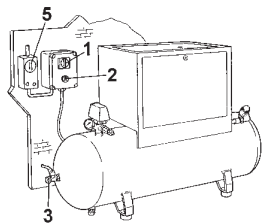
THE OLD OIL MUST BE DISPOSED OF IN COMPLIANCE WITH THE REGULATIONS IN FORCE.

16.0 PERIODS OF INACTIVITY

In case the unit should be stopped for a long period:

- Stop the machine, turning in "0" position the isolating switches Ref. 1 Fig. 13
- Stop the machine, on the pressure switch pressing button Ref. 1 fig 12
- Turn on the supply automatic differential switch Ref. 5 Fig. 13.
- Close the cock Ref. 3 Fig. 13.

FIG.



During periods of inactivity the unit must be protected against atmospheric agents, dust and humidity which could damage the motor and the electrical system.

To restart the machine after periods of inactivity, consult the authorized customer services.

17.0 SCRAPPING THE UNIT

If the machine is to be scrapped, it must be dismantled into parts of the same material, to be disposed of according to the local regulations in force.



ALWAYS RESPECT THE REGULATIONS IN FORCE FOR DISPOSING OF OLD OIL AND OTHER POLLUTING MATERIALS SUCH AS SOUND-DEADENING FOAM, ETC.

5.0 DESCRIPTION OF DANGER SIGNALS

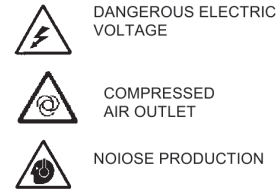
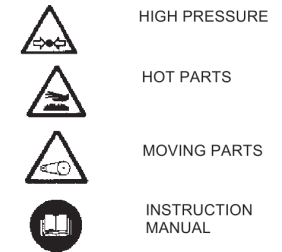


FIG. 2



6.0 DANGER ZONES



Risks present on the whole machine

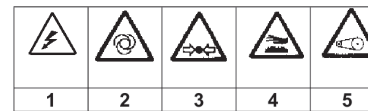
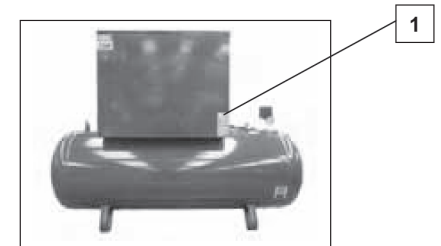
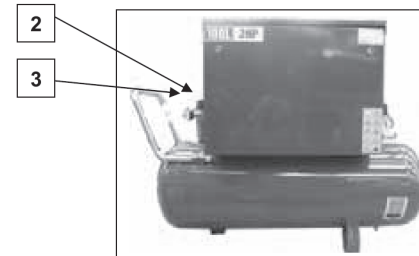
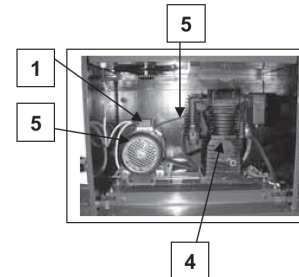


FIG. 3



7.0 SAFETY DEVICE

- 1) Safety valve
- 2) Safety screw
- 3) Shield

- 4) Panel opening with special spanner
- 5) Pressure switch

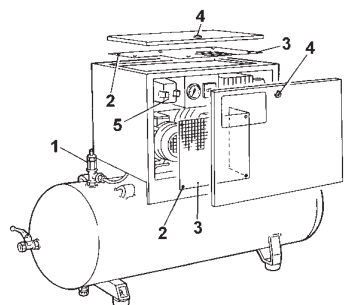
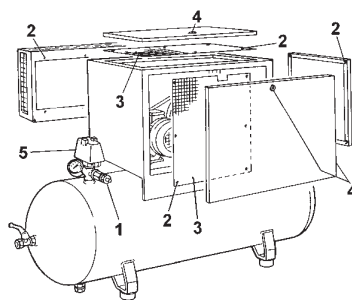


FIG. 4



8.2 POSITION OF THE DATA PLATES

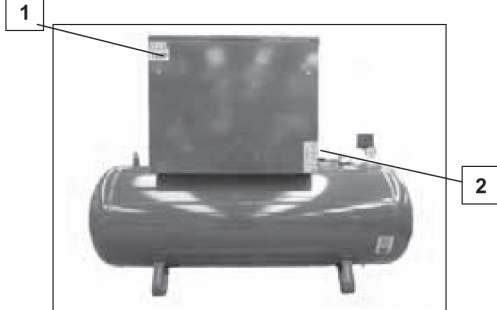


FIG. 6

- 1) Recognition plate
- 2) Danger plate

9.0 COMPRESSOR ROOM

9.1 FLOOR

On the models the floor for industrial units must be level, the total weight of the machine is shown in Fig. 7

9.2 VENTILATION

When the machine is operating, the room temperature must not be higher than 35°C or lower than 1°C. The choice of an appropriate room will prolong the life of your compressor; the room must be spacious, dry, well ventilated and free from dust.

10.0 TRANSPORT AND HANDLING

Transportation of the machines must be done according to instructions given by the following figures.

11.0 UNPACKING

After removing the packing, ensure that the machine is unbroken and that there are no visibly damaged parts. If you are in doubt, do not use the machine but apply to your dealer. The packing material (plastic bags, nails, wood, etc.) must not be left within the reach of children or abandoned in the environment, as they are a potential source of danger and pollution. Dispose of these materials in the approved collection centres.

15.0 MAINTENANCE SCHEDULE



BEFORE CARRYING OUT ANY MAINTENANCE JOBS IT IS OBLIGATORY TO STOP THE MACHINE AND DISCONNECT IT FROM THE POWER MAINS.

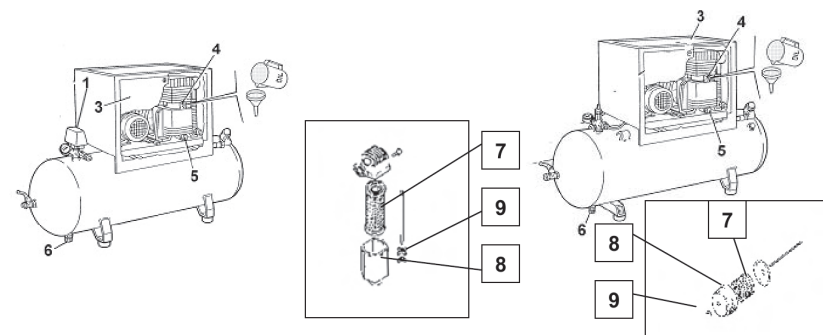
Checks	Each Week	Every 500h	Every 1500h
Check the oil level in the sump	•		
Drain condensate from the tank	•		
Clean or replace the air filter cartridge		•	
Oil change			•
Check the belt tension			•

(T) The maintenance schedule is suggested for using the compressor in well ventilated and dustless environment **Cap. 15.3 and Cap. 20.0.**
ATTENTION: after the first 50 hours' operation change the oil and tighten the bolts on the head (see Cap. 15.4 and "PART B" Cap. 20.1).

15.1 CHECKING THE OIL LEVEL

- Stop the machine, on the pressure switch pressing button Ref. 1 fig 12

FIG. 12



HOT PARTS

- See the panel Ref. 3 Fig. 12 with the key provided
- Check the oil level at the level indicator Ref. 4 Fig. 12.
- If the oil level is below top up to maximum level with oil of the same type as that the compressor.



USE OIL OF THE SAME TYPE AS THAT ALREADY IN THE MACHINE; DO NOT MIX DIFFERENT TYPES OF OIL.

- Close the cap Ref. 4 Fig. 12
- Close the panel Ref. 3 Fig. 12

15.2 DRAINING CONDENSATE

- The condensate must be drained off every 50 hours or every week.
- Open the cock Ref. 6 Fig. 12 and drain the condensate out.
- When the operation is finish, close the cock again.



CONDENSATE MUST BE DISPOSED OF IN CONFORMITY WITH THE LOCAL REGULATIONS IN FORCE.

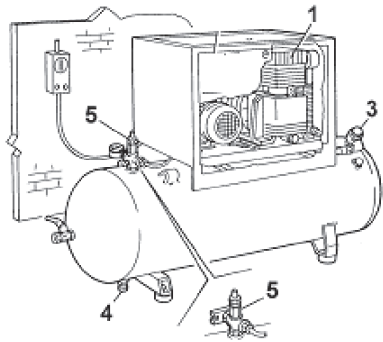
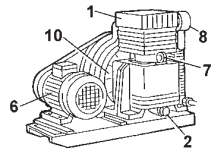
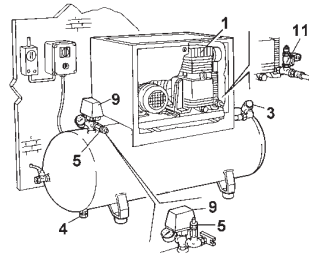
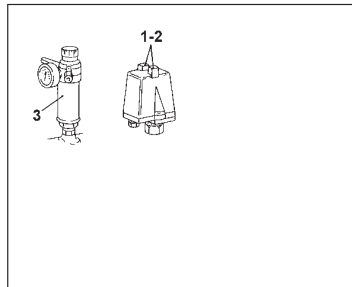


Fig. 10

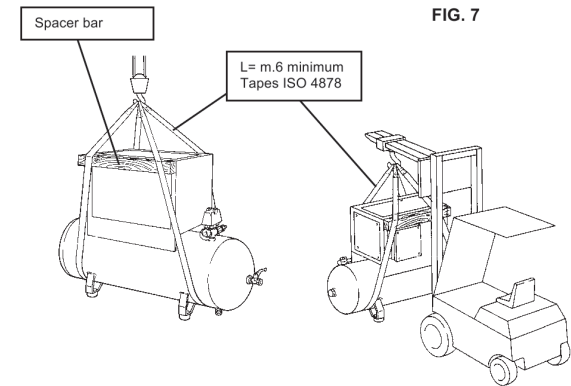


14.2 COMMAND AND CONTROL PANEL

! BEFORE CARRYING OUT THE OPERATION TEST, READ CAREFULLY AND ACQUIRE A GOOD KNOWLEDGE OF THE COMMAND FUNCTIONS.



- 1) Pressure gauge for checking pressure
- 2) Pressure gauge tank



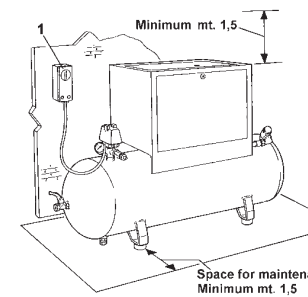
12.0 INSTALLATION

! ALL DAMAGE DUE TO FAILURE TO OBSERVE THE INDICATIONS GIVEN BELOW CANNOT BE ATTRIBUTED TO THE MANUFACTURER AND MAY CAUSE THE GUARANTEE TERMS TO BECOME INVALID.

12.1 POSITIONING

After unpacking the equipment and preparing the compressor room, put the machine into position, checking the following items:

- ensure that there is sufficient space around the machine to allow maintenance (see Fig. 8).



12.2 ELECTRICAL CONNECTION



MACHINE WITH AUTOMATIC RESTART

- Check that the supply voltage is the same as the value indicated on the machine data plate.
- Check the condition of the line leads and ensure that there is an efficient earth lead.
 - Ensure that there is an automatic cut-out device upstream for the machine against overcurrents, with a differential device set at 30 mA (see Ref. 1 wiring diagram).
 - Connect the cables to the charging clamps on the electric panel and make sure they are properly tightened. After the first 50 working hours, check that the screws on the electric terminals are tight.

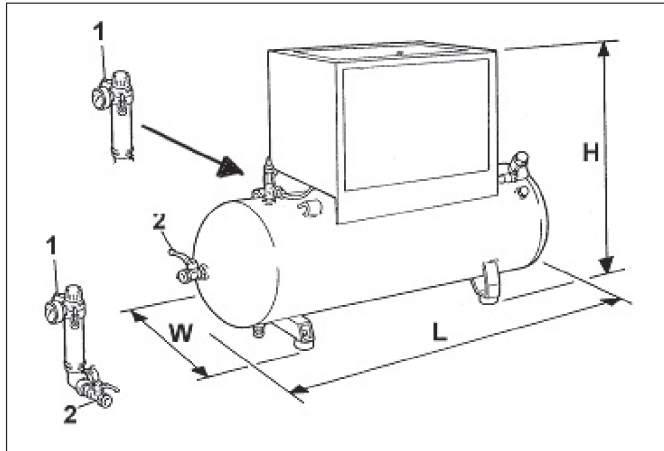
ONLY PROFESSIONALLY SKILLED PERSONNEL MAY HAVE ACCESS TO THE ELECTRIC PANEL. BEFORE DISCONNECTING THE ELECTRICAL PROTECTIONS, SHUT DOWN THE POWER SUPPLY.



COMPLIANCE WITH THE REGULATIONS IN FORCE CONCERNING ELECTRIC PLANTS IS FUNDAMENTAL FOR OPERATOR SAFETY AND FOR THE PROTECTION OF THE MACHINE.

12.3 CONNECTION TO THE COMPRESSED AIR NETWORK

The compressed air can be received from the attachment Ref. 1 Fig. 9 after the pressure reducer, or from the tap Ref. 2 at the same pressure as that of the tank (after having fitted the cock).



12.4 STARTING UP

See part B of this manual, Chapter 20.0

13.0 DIMENSIONS AND TECHNICAL DATA

Basic code	Dimensions mm.		
	L	W	H
PROSIL CM 250/100 PT	1200	450	960
PROSIL CM 350/200 PT	1560	520	1020
PROSIL CT 350/200 TP	1560	520	1020
PROSIL CT 500/270 TP	1700	700	1280
PROSIL CT 640/270 TP	1700	700	1280
PROSIL CT 640/270 SD	1700	700	1280
PROSIL FT 640/500 TP	1700	700	1280
PROSIL FT 640/500 SD	1700	700	1280
PROSIL FT 800/500 TP	1700	700	1280
PROSIL FT 850/500 SD	1700	700	1280

		Compressors Identification				
		PROSIL CM 250/100 PT	PROSIL CM 350/200 PT	PROSIL CT 350/200 TP	PROSIL CT 500/270 TP	PROSIL CT 640/270 TP
Shifted volume	l/1'	220	321	321	495	552
Setting pressure	bar	10	10	10	10	10
Noise Level	dB (A)	68	68	68	68	69
Noise Level	LWA	77	77	77	77	78
Net weight	Kg.	87	115	115	125	195
Power	HP Kw	2 1.5	3 2.2	3 2.2	4 3	5.5 4
Oil load	Lt.	1	1	1	1.8	1.8
		PROSIL CT 640/270 SD	PROSIL FT 640/500 TP	PROSIL FT 640/500 SD	PROSIL FT 800/500 TP	PROSIL FT 850/500 SD
Shifted volume	l/1'	552	552	552	872	872
Setting pressure	bar	10	10	10	10	10
Noise production	dB (A)	69	69	69	69	69
Noise Production	LWA	78	78	78	78	78
Net weight	Kg.	195	247	247	252	252
Power	HP Kw	5.5 4	5.5 4	5.5 4	7.5 5.5	7.5 5.5
Oil load	Lt.	1.8	1.8	1.8	1.45	1.45

14.0 MACHINE ILLUSTRATION

14.1 GENERAL LAY-OUT

1) Compressor	7) Oil cap with dipstick
2) Oil cap discharge	8) Air intake filter
3) No-return valve	9) Pressure switch
4) Draining condensate	10) Cooling fan
5) Safety valve (T)	11) Electrovalve
6) Electric motor	T IT IS FORBIDDEN TO TAMPERE WITH THE SETTING VALUES OF THE SAFETY VALVE.