LEADING PRODUCT

AIR COMPRESSOR

Reciprocating Piston Air Compressor Oil Lubricated

INSTRUCTION MANUAL

WARNING: Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

IMPORTANT IINFORMATION

Read and understand all of the operation instructions, safety precautions and warnings in the Instruction Manual before operating or maintaining this compressor.
Most accidents that result from compressor operation and maintenance are caused by the failure to observe basic safety rules or precautions.
An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures.
Basic safety precautions are outlined in the "SAFETY" section of this Instruction Manual and in the sections which contain the operation and maintenance instructions.
Hazards that must be avoided to prevent bodily injury or machine damage are identified by WARNINGS on the compressor and in this Instruction Manual.
Never use this compressor in a manner that has not been specifically recommended by manufacturer, unless you first confirm that the planned use will be safe for you and others.

MEANINGS OF SIGNAL WORDS

WARNING: Indicates a potentially hazardous situations which if ignored could result in serious personal injury.
CAUTION: Indicates a hazardous situations which if ignored could result moderate personal injury or could cause machine damage.
NOTE: Emphasizes essential information.

SAFETY

IMPORTANT SAFETY IINSTRUCTIONS FOR USE OF THE COMPRESSOR

WARING:

DEATH OR SERIOUS BODILY INJURY COULD RESULT FROM IMPROPER OR UNSAFE USE OF COMPRESSOR TO AVOID THESE RISKS, FOLLOW THESE

BASIC SAFETY INSTRUCTIONS.

READ ALL INSTRUCTIONS

1. **NEVER TOUCH MOVING PARTS**
   Never place your hands fingers or other body parts near the compressors moving parts.
2. **NEVER OPERATE WITHOUT ALL GUARDS IN PLACE**

Never operate this compressor without all guards or safety features in place and in proper working order. If maintenance or servicing requires the removal of a guard or safety features, be sure to replace the guards or safety feature before resuming operation of the compressor.

3. **ALWAYS WEAR EYE PROTECTION**
   Always wear safety goggles or equivalent eye protection. Compressed air must never be aimed at anyone or any part of the body.
4. **PROTECT YOURSELF AGAINST ELECTRIC SHOCK**
   Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigeration enclosures. Never operate the compressor in damp or wet locations.
5. **DISCONNECT THE COMPRESSOR**
   Always disconnect the compressor from the power source and remove the compressed air from the air tank before servicing, inspecting, maintaining, cleaning, replacing or checking any parts.
6. **AVOID UNINTENTIONAL STARTING**
   Do not carry the compressor while it is connected to its power source or when the air tank is filled with compressed air. Be sure the knob of the pressure switch in the "OFF" position before connecting the compressor to its power source.
7. **STORE COMPRESSOR PROPERLY**
   When not in use, the compressor should be stored in dry place. Keep out of reach of children, Lock-out the storage area.
8. **KEEP WORK AREA CLEAN**
   Cluttered areas invite injury. Clear all work areas of unnecessary, tools, debris, furniture etc.
9. **KEEP CHILDREN AWAY**
   Do not let visitors contact compressor extension cord. All visitors should be kept safely away from work area.
10. **DRESS PROPERLY**
    Do not wear loose clothing or jewelry. They can be caught in moving parts. Wear protective hair covering to contain long hair.
11. **DON'T ABUSE CORD**
    Never yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
12. **MAINTAIN COMPRESSOR WITH CARE**
    Follow instructions for lubricating. Inspect cords periodically and if damaged, have repaired by authorized service facility.
    Inspect extension cords periodically and replace if damaged.
13. **OUTDOOR USE EXTENSION CORDS**

When compressor in used outdoors, use only extension cords intended for use outdoors and so marked.

14. STAY ALERT

Watch what you are doing. Use common sense. Do not operate compressor when you are tired.

Compressor should never be used by you if you are under the influence of alcohol, drugs or medication that makes you drowsy.

15. CHECK DAMAGED PARTS AND AIR LEAK

Before further use of the compressor, a guard or other part is damaged should be carefully checked to determine that it will operate properly and perform its intended function.

Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, air leak, and any other conditions that may affect its operation.

A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction. Manual. Have defective pressure switches replaced by authorized service center.

Do not use compressor if switch does not turn it on and off.

16. HANDLE COMPRESSOR CORRECTLY

Operate the compressor according to the instructions provided herein. Never allow the compressor to be operated by children, individuals unfamiliar with its operation or unauthorized personnel.

17. KEEP ALL SCREWS, BOLTS AND COVERS TIGHTLY IN PLACE

Keep all screws, bolts, and plates tightly mounted. Check their conditions periodically.

18. KEEP MOTOR AIR VENT CLEAN

The motor air vent must be kept clean so that air can freely flow at all times. Check for dust build-up frequently.

19. OPERATE COMPRESSOR AT THE RATED VOLTAGE

Operate the compressor at voltages specified on their nameplates. If using the compressor at a higher voltage than the rated voltage. It will result in abnormally fast motor revolution and may damage the unit and burn out the motor.

20. NEVER USE A COMPRESSOR WHICH IS DEFECTIVE OR OPERATIONG ABNORMALLY

If the compressor appears to be operating unusually, making strange noises, or otherwise appears defective, stop using it immediately and arrange for repairs by an authorized service center.

21. DO NOT WIPE PLASTIC PARTS WITH SOLVENT

Solvents such as gasoline, thinner, benzine, carbon tetrachloride, and alcohol

may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water and dry thoroughly.

22. USE ONLY GENUINE REPLACEMENT PARTS

Replacement parts not original may void your warranty and can lead to malfunction and resulting injuries. Genuine parts are available from your dealer.

23. DO NOT MODIFY THE COMPRESSOR

Do not modify the compressor. Always contact the authorized service center any repairs. Unauthorized modification may not only impair the compressor performance but may also result in accident or injury to repair personnel who do not have the required knowledge and technical expertise to perform the repair operations correctly.

24. TURN OFF THE PRESSURE SWITCH WHEN THE COMPRESSOR IS NOT USED

When the compressor is not used, turn the knob of the pressure switch OFF, disconnect it from the power source and open the drain cock to discharge the compressed air from the air tank.

25. NEVER TOUCH HOT SURFACE

To reduce the risk of burns, do not touch tubes, heads, cylinder and motors.

26. DO NOT DIRECT AIR STREAM AT BODY

Risk of injury, do not direct air stream at persons or animals.

27. DRAIN TANK

Drain tank daily or after 4 hours of use.

Open drain fitting and tilt compressor to empty accumulated water.

28. DO NOT STOP COMPRESSOR BY PULLING OUT THE PLUG

Use the "AUTO/OFF" knob of pressure switch.

29. USE ONLY RECOMMENDED AIR HANDLING PARTS ACCEPTABLE FOR PRESSURE NOT LESS THAN 125 PSI (8.6BAR)

Risk of bursting. Use only recommended air handling parts acceptable for pressures not less than 125 PSI (8.6 bar).

REPLACEMENT PARTS

When servicing use only identical replacement parts.
Repairs should be conducted only by authorized service center.

SAFETY-continued

GROUNDING INSTRUCTIONS

This compressor should be grounded while in use to protect the operator from electric shock. The compressor is equipped with a three-conductor cord and three-prong grounding type plug to fit the proper grounding type receptacle.
The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

EXTENSION CORD

Use only three-extension cords that have three-prong grounding type plugs and three-pole receptables that accept the compressor's plug, Replace or repair damaged cord . MAKE SURE YOUR EXTENSION CORD IS IN GOOD CONDITION. When using an extension cord be sure to use one heavy enough in carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating Table shows the correct size to use depending on cord length and name plate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier-the cord.

Tab. 1 SECTION VALID FOR A MAX LENGTH OF 20mt single-phase

CV	KW	220/230V	110/120V
		mm^2	mm^2
0.75-1	0.65-0.7	1.5	2.5
1.5	1.1	2.5	4
2	1.5	2.5	4-6
2.5-3	1.8-2.2	4	/

The diameter of the extension cable of the 3-phase compressors must be in proportion to its length: see table (tab 2)

Tab. 2 SECTION VALID FOR A MAX LENGTH OF 20mt three-phase

CV	KW	220/230V	380/400V
		mm^2	mm^2
2-3-4	1.5-2.2-3	2.5	1.5
5.5	4	4	2
7.5	5.5	6	2.5
10	7.5	10	4

WARNING

Avoid electrical shock hazard. Never use this compressor with a damaged or frayed electrical cord or extension cord. Inspect all electrical cords regularly. Never use in near water or in any environment where electric shock is possible.

SAVE THESE INSTRUCTION AND

MAKE THEM AVAILABLE TO OTHER USERS OF THIS TOOL !

OPERATION AND MAINTENANCE

NOTE: The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the compressor. Some Illustrations in this Instruction Manual may show details or attachments that differ from those on your own compressor.

INSTALLATION

Remove the compressor from its packing, makes sure it is in perfect condition, checking if it was damaged during transport, and carry out the following operation. Fit the wheels and rubber tab on the tanks on which they are not already fitted, observing the instruction. In case of inflatable wheels, the maximum inflation pressure must be of 1,6 bar (24 psi). Position the compressor on a flat surface or with a maximum permissible inclination of 10, in a well aired place protected against atmospheric agents and not in a place subject to explosion hazard. If the surface is inclined and smooth, check if the compressor moves while in operation - if it does, secure the wheels with two wedges. If the surface is a bracket or a shelf top, make sure it cannot fall, securing it in a suitable way. To ensure good ventilation and efficient cooling, the compressors belt guard must be at least 100 cm from any wall. Compressors fitted on the tank, with fixed feet should not be rigidly secured to the ground. In this case, we advise you to fit 4 anti-vibration supports.

USE INSTRUCTIONS

Take care to transport the compressor correctly, do not overturn it or lift it with hooks or ropes

Replace the plastic plug on the guard over with the oil level stick or with the relevant breather plug, supplied with the instructions booklet. Check oil level, consulting the reference marks on the stick or the oil level inspection window.

ELECTRICAL CONNECTION

Single-phase compressors are supplied with an electrical cable and a two-pole +earth plug. The compressor must be connected to a grounded power socket.
Three-phase compressors (L1+L2+L3+PE) must be installed by a specialized technician. Three-phase compressors are supplied without a plug. Connect a plug. With screw-on grommet and securing collar, to the cable consulting the table below.

HP	KW	Power supply volt/ph	Plug model
2-3-4	1.5-2.2-3	220/380/3	
		230/400/3	16A 3 pole + ground
5.5-7.5-10	4-5.5-7.5	220/380/3	
		230/400/3	32A 3 pole + ground
		110/220/3	

Installation instruction:

---Secure the control unit box on a wall or on a fixed support, and provide it with a power cable with plug of a diameter in proportion to its length.

---Any damage caused by incorrect connections of the power line to the mains, automatically excludes warranty of electrical parts. To avoid connection errors, we advise you to contact a specialized technician.

IMPORTANT:

Never use the ground socket instead of the neutral wire. The ground connection must be made to meet safety standards.
The plug of the power cable must not be used as a switch, but must be fitted in a power socket controlled by a suitable differential switch (thermal-breaker).

STARTING

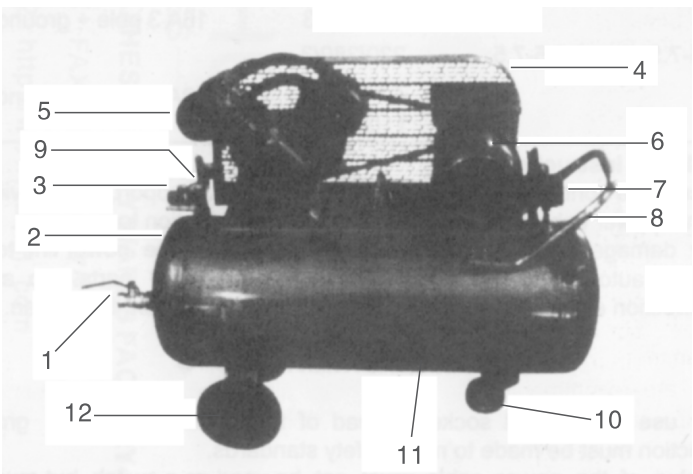
Check that the mains power matches that indicate on the electrical date-plate - the permissible tolerance range is +/-5%. When first starting compressors operation on 3-phase voltage, check the rotation direction of the cooling fan by comparing it with the direction of the arrow on the belt guard or on the protective housing.
Turn or press into position "Off" (according to the type of pressure switch filled on the appliance) the knob located on the upper section. Fit the plug in the power socket and start the compressor, turning the pressure switch knob into position "Auto". The compressor is fully automatic, and is controlled by the pressure switch which stops it

when tank pressure reaches maximum value and restarts it when it falls to minimum value. The pressure difference between maximum and minimum values is usually about 2 bar

E.g.: the compressor stops when it reaches 8 bar (116 psi-maximum operating pressure) and restarts automatically when the pressure inside the tank drops to 6 bars (87 psi).

After connecting the compressor to the power line, load it to maximum pressure and check exactly how the machine is operating.

COMPONENTS



1- Direct compressed air outlet (only tank capacity is 600L have the valve at this position)
2- Tank
3- Pressure reducer
4- Belt-guard
5- Compressor unit
6- Electric motor
7- Pressure switch
8- Handle
9- Pressure guage
10- Pivot wheel
11- Tank drain valve
12- Wheel

ADJUSTING OPERATING PRESSURE

You do not have to use the maximum operating pressure at all times. On the contrary, the pneumatic tool being used often requires less pressure.
On compressors supplied with a pressure reducer, operating pressure must correctly adjusted.
Release the pressure reducer knob clockwise to increase pressure and anti-clockwise to reduce it. when you have obtained optimum pressure, lock the knob by pressing it downward. For pressure reducers equipment without a pressure gauge, the set pressure can be seen on the graduated scale located on the reducer body.
On pressure reducers equipped with a pressure gauge, pressure can be seen on the gauge itself.

MAINTENANCE

Before attempting any maintenance jobs on the compressor, make sure of the following:
-Master power switch in position "Off "
-Pressure switch and the control unit switches all off, in position "Off ".
-No pressure in the air tank.
Every 50 hours of duty. We advise you to dismantle the suction filter and clean the filtering element by bellowing compressed air on it.
You are recommended to replace the filter element at least once if the compressor operates in a clean environment, but more frequently if in a dusty environment.
The compressor generates condensate water which accumulates in the tank. The condensate in the tank must be drained at least once a week , by opening the drain tap under the tank.
Take care if there is compressed air inside the cylinder, and water could flow out with considerable force. Recommended pressure: 1-2 bar max.
Condensate of compressors that are oil lubricated must be drained into the sewer or dispersed in the environment as it contain oil.

OIL CHANGES -TOPPING UP OIL

The compressor is filled with synthetic oil.
We recommend a full change of oil in the pumping element within the first 100 hours to duty.
Unscrew the oil drain plug on the pump, allow all the oil to flow out, and re-screw the plug.

Pour oil into the upper hole of housing cover until it reaches the level indicated on the stick or indicator.
Pour oil into the upper hole of the head in belt assisted units designed for topping up in that area.
Once a week check oil level of the pumping element and see if it needs topping up.

For operation at ambient temperature in the range -5°C to +35°C , use " SAE 5W50 " synthetic oil. The advantage of this oil is that is does not lose its characteristics either in winter or summer.
Do not drain used oil into the sewer or display of it in the environment.

WHAT TO DO IF SMALL MALFUCTIONS OCCUR

Loss of air in value under pressure switch
This trouble depends on poor tightness of the check value-take the following action:
-Discharge all pressure from the tank;
-Unscrew the hexagon-head of the value;
-Carefully clean both the rubber disk and its seat;
-Refit all parts accurately.

Compressor turns but does not load
Coaxial compressors:
-this may be due to failure of the valves or of a seal; replace the damaged part.
-pulley drive compressors
-this may be due to failure of the valves or of a seal; replace the damaged part.
-check if there is too much condensate water inside the tank

Compressor no starting
If the compressor has trouble starting, check the following:
-Does mains power match that of the data-plate?
-Are power cable extensions of adequate diameter or length?
-Is the work environment too cold?(under 0°C)
-Was the thermal -breaker tripped?
-Is there oil in the housing to ensure lubrication?
-Is power supplied to the electrical line ? (sockets well connected thermal-breaker, fuses in good condition).

Compressor not stopping
-If the compressor does not stop when maximum pressure is reached, the tank safety

value comes into operation. To repair the valve, contact your nearest service centre.

IMPORTANT

-Do not on any account unscrew any connection while the tank is pressurized -always check if the tank is pressure free.
-Do not drill holes, weld or purposely deform the compressed air tank.
-Do not do any jobs on the compressor unless you have disconnected the power plug.
-Temperature in operating ambient: $0^{o}C+25^{o}C$.
-Do not aim jets of water or inflammable liquids on the compressor.
-Do not place inflammable objects near the compressor.
-During down-times, turn the pressure switch to position "Off ".
-Never aim the air jet at people or animals
-Do not transport the compressor while the tank is pressurized.
-Be careful with regard to some parts of the compressor such as the head and delivery tubes, as they can reach high temperatures. Do not touch these parts to avoid burns.
-Transport the compressor, lifting or pulling it with the appropriate grips or handles.
-Keep children and animals well away from the machines operating area.
-If using the compressor for painting:
a) Do not work in close environments or near to naked flames.
b) Make sure there is adequate exchange of air at the place of work.
c) Protect your nose and mouth with an appropriate mask.
-If the electrical cable or plug are damaged, do not use the compressor and contact an authorized service centre to replace the faulty element with an origin spare part.
-If the compressor is located on a shelf or on a top above floor height, it must be secured to prevent it falling while in operation.
-Do not put objects or your hands inside the protective grilles to avoid injury to yourself or damaging the compressor.
-Do not use the compressor as a blunt object toward things or animals to avoid serious damage.
-when you have finished using the compressor, always remove the plug from the power socket.
-The use of noise -proof safety devices is recommended.
duct long term.

PNEUMATIC CONNECTIONS

Make sure you always use pneumatic tubes for compressed air with maximum pressure characteristics that are adequate for the compressor. Do not attempt to repair tubes if faulty.

INSTRUCTION FOR USE OF COMPRESSED AIR TANKS

To ensure operation of compressed air vessels under safe conditions, the proper use of the same must be guaranteed. To this purpose, the user should proceed as follows:

1) use the vessel properly, within the pressure and temperature limits stated on the nameplate and on the testing report, which must be kept with care;
2) weldings on the vessel are forbidden;
3) assure that the vessel is complete with suitable and adequate safety and control fittings and replace them with equivalent ones in case of necessity, prior to the Manufacturer's consent.
   In particular, the safety valve must be applied directly to the vessel, have a discharge capacity higher than the air intake and be set and leaded at a pressure of (1) bar. The pressure value of (2) bar on the pressure gauge should be indicated with a red mark.
4) avoid storing the vessel in badly ventilated rooms, near heating sources or inflammable substances;
5) during operation rule out vibrations, they could cause fatigue fallures;
6) drain condensate deposits from the vessel daily.
   Every three months shall be checked, by looking through the inspection holes on the ends, if internal corrosion exists.
   This check shall be intensified if the vessel is used with oil less compressors.
   The actual wall thickness of the vessel after corrosion shall not be smaller than (4) mm for the shell and (3) mm for the ends.
7) Proceed sensibly and carefully, according to the existing prescriptions.
   TAMPERING AND IMPROPER USE OF THE VESSEL ARE FORBIDDEN.
   The user must comply with the laws on the operation of pressure equipment in force in the relative countries.

WE RESERVE THE RIGHT TO MAKE ANY MODIFICATIONS WITHOUT PRIOR NOTICE WHENEVER NECESSARY.