Polymak®

Polymak Tools(India) Pvt.Ltd

No.:186/187,Poonamallee High Road,Kilpauk

Chennai-600010, Tamilnadu, India

Tel: +91-44-26401869

E-mail:info@polymak.co.in Visit us at:www.polymak.co.in

Polymak®

OIL FREE AIR COMPRESSOR

PMAC30-OL

INSTRUCTION MANUAL

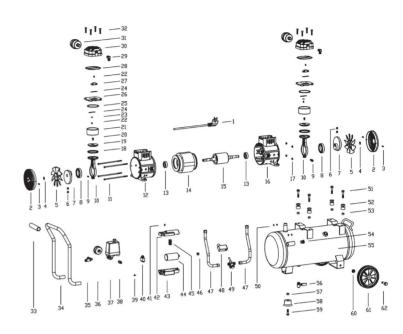


Read and follow all safety precautions in instruction manual.

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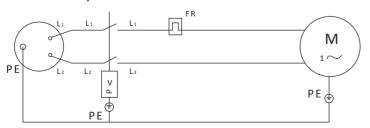
8. Illustration of Components, Spare Parts Lists:



No.	Part Name	No.	Part Name	No.	Part Name
1	AC Cord & Socket	22	Bolt, Valve Plate	42	Up Cover,Capacity
2	Fan Cover	23	Intake Valve Holder Plate 43 Down Cover,Capac		Down Cover, Capacity
3	Bolt,Fan Cover	24	Valve Plate	44	Capacity
4	Clip,Fan	25	Seal, Valve Plate	45	Wire Terminal Cable
5	Cool Fan	26	Valve Board	46	Nut,Capacity
6	Bolt,Camshat	27	Valve Plate Cover	47	Intake Pipe
7	Camshaft	28	Seal,Cylinder Head	48	Electrical Magnetic Valve
8	6006 Bearing	29	Intake Joint	49	Single Way Valve
9	Bolt,Rod	30	Cylinder Cover	50	Bolt,Handle
10	Rod	31	Muffler	51	Bolt,Rubber Foot,Motor
11	Bolt, Crankcase (Left)	32	Bolt,Cylinder Head	52	Rubber Foot,Motor
12	Crankcase(Left)	33	Foam,Handle	53	Nut,Rubber Foot,Motor
13	6203 Bearing	34	Handle	54	Plug, Handle
14	Stator	35	Exhaust Joint	55	Air Tank
15	Rotor	36	Pressure Gauge	56	Drain Valve
16	Crankcase(Right)	37	Stoping Controll Switch	57	Nut,Rubber Foot,Air Tank
17	Nut, Crankcase (Right)	38	Released Valve	58	Robber Foot, Air Tank
18	Gasket, Piston	39	Bolt,Circult Breaker	59	Bolt,Rubber Foot,Air Tank
19	Gasket Plate	40	Circult Breaker	60	Nut,Rubber Wheel
20	Bolt,Gasket Plate	41	Bolt,Capacity	61	6 Inch Robber Wheel
21	Cylinder			62	Bolt,Wheel

	Bearing is worn	Replace	
Machine is shaking or	A foreign object has accidentally	Check and remove or clean	
excessively loud	entered the compressor		
CACCOSTVETY TO GU	Connecting rod is seriously worn	Replace	
	You are using the compressor	Operate at the specified pressure only	
	beyond its normal pressure		
Motor is getting too hot	One-way is blocked	Repair or replace	
	Bearing is cracked.	Replace	
	Power cable is too thin	Replace the cable	
	Capacitor is broken	Replace	
	Too much oil in the oil	The oil should only be filled to the specified	
Excessive oil consumption	compartment	level	
Excessive on consumption	Piston ring and cylinder are worn or	Replace	
	damaged		
	Air filter is blocked	Clean or replace the cartridge	
Discharge capacity is lessened	Piston ring or cylinder is worn	Replace	
	Air outlet valve is blocked	Clean	
	Pressure switch is defective	Replace	
	The pressure valve controlled by	Decrease the pressure setting	
Tank pressure is too high or the	the pressure switch is set too high		
safety valve hums	Pressure gauge damaged	Replace	
	Pressure of safety valve is set too	Adjust the operating pressure of the safety	
	low or safety valve is damaged	valve or replace	
	Valves are rusty or blocked	Polish and clean	
Valves do not operate properly	Valves are broken	Replace	
	Pressure too high	Decrease the operating pressure	
	Pressure gauge indicates excessive	Repair or replace	
	pressure; pressure switch does not		
Motor runs continually	work		
	Pressure gauge indicates pressure	Check cover, pipe and joints first, then remove	
	leak but motor runs continually		
	Valve is rusty or blocked	Clean	
Pressure does not reach set	Piston ring or cylinder is worn	Replace	
level	Valve is split	Replace	
	Air leak at the joint	Check and remove	

7. Diagram of the Electrical System:



1. Operation before Using



Attention:

Read through the complete **Operator's manual** prior to the initial use of your compressor.

Thank you for purchasing our Air Compressor.

Your machine is designed for long life, dependability, and the top performance you demand! Please take time now to read through this manual so you better understand the machine's operation, maintenance and safety precautions.

Everyone who operates this machine must read and understand this manual Before Operation.

The time you take now will prolong your machine's life and prepare you for its safe operation. Enjoy the exceptional performance of your Air Compressor, the industry leader!

The manufacturer reserves the right to make improvements in design and/or changes in specifications at any time without incurring any obligation to install them on units previously sold.

2. Warning Symbols and Labels for Operation



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

The safety alert symbol is used with a signal word (DANGER, CAUTION, and WARNING), a pictorial and/or a safety message to alert youto hazards.



WARNING



AIR TANK EXPLOSION WARNING: Drain liquid from air tank daily, or after each use, using the drain valve located on the bottom of the lower air tank. Failure to properly drain liquid from the tank will cause rust from moisture buildup, which weakens the tank and could lead to violent tank explosion, Periodically inspect the tanks for unsafe conditions such as corrosion.

AIR TOOLS AND ACCESSORIES WARNING: Do not exceed the pressure rating of any air tools, spray guns, air accessories, or inflatable's. Excess pressure can cause them to explode, resulting in serious injury. Follow the manufacturer's recommended pressure Settings for all air tools and air accessories.

Arcing Parts. Keep the compressor/motor at least 6m away from explosive vapour

Never attempt to repair or make modifications to the tank or its attachments. Welding, drilling or any other modifications may weaken the tank, which may result in damage from rupture or explosion. Never factory set operating pressures. Remove or attempt to adjust the pressure switch, safety valve, or other factory set operating pressures.



WARNING



FIRE WARNING: Avoid dangerous environments. Do not use compressor near gasoline or other flammable materials. Keep work area well lit.

Normal sparking of a motor or sparking from grinding metal could ignite fumes. Do not spray flammable materials in the vicinity of an open flame or other ignition source, including the air compressor itself. Do not direct paint or other spray material towards the compressor.

Motors, electrical equipment and controls can cause Electrical arcs that will ignite a flammable gas or vapor. Never operate or repair in or near a flammable gas or vapor. Never store flammable liquids or gases in the vicinity of the compressor.

Do not spray flammable materials in vicinity of open flame or near ignition sources including the compressor unit.

Read and follow all safely instructions for the material you are spraying. Be sure to use an approved respirator designed for use with your specific application.



WARNING



BREATHABLE AIR WARNING: This air compressor in not designed, nor intended for the supply of breathable quality air. Air produced by this unit may contain carbon monoxide or other toxic vapors.

Do not inhale air from the compressor or from a breathing device connected to it.



WARNING



ELECTRIC SHOCK WARNING:

When using electric powered tools, machines or equipment, basic safety precautions should always be followed to minimize the risk of electrical shock or personal injury to yourself and others.

This air compressor is powered by electricity and should never be used without properly grounded electrical connections. Do not use in wet or damp locations or expose to rain.

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- 5. Periodically check parts and bolts for tightness.
- 6. Remove the air valve plate and clean every 500 hours or once every six months.
- 7. Replace the piston ring after 1,500 hours of operation.
- 8. Make sure the guard is properly attached and the warning signs are clearly readable.
- 9. Check the safety valve response before operation every time. Get a qualified technician to inspect the pressure gauge once per year.
- 10. Check the surface and thickness of the tank wall once per year. The surface should not display any rust or other defects; the thickness of the wall should not be less than the specified value.

6.2 Trouble Shooting

Attention:

Only specially trained technicians or distributors are authorized to repair and replace parts! All replacements should be carried out by our company or our designated agent! If these Instructions are not complied with; we will not take responsibility for any ensuing damage or injury!

6.2.1 Electrical problems and solutions

	Power plug is broken or there is a problem with the mains socket	Check the plug and the socket	
	Pressure switch does not turn on or electrical connection is	Try activating switch again or	
	interrupted.	discharge unit; wait until	
		pressure is below 4 bar	
Motor does not run	Pressure switch is defective	Replace	
and emits no sounds	Overload protector is active	Remove and check; press the	
and enints no sounds		reset button	
	Fuse is blown	Replace	
	Electrical connection is broken	Repair or replace	
	Motor winding is burnt out	Replace	
	Low voltage	Voltages more than 10%	
		below rating are insufficient	
	Motor winding is shorted out	Replace	
	Defective capacitor	Replace	
Motor does not run	Loading mechanism does not function properly	Check for blockages between	
but emits a hum		the piston and the cylinder	
		and between the connecting	
		rod and the crank	
	Faults in electrical cables	Repair	
Touch the machine	Fault in the earth cable	Repair	
results in electrical	results in electrical Motor insulation is defective		
shocks. Connections or cables are broken or touching exposed metal parts		Check and repair	

6.2.2 Mechanical problems and solutions

Machine vibrates strongly	High discharge pressure	Use the specified discharge pressure only	
Machine vibrates strongly	Connecting rod and crank are worn	Replace	

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6. Maintenance& Trouble Shooting

Attention:

Before any maintenance the power plug has to be removed from the supply socket. All maintenance and repair work should only be carried out once the power supply is cut off and the machine is completely discharged. While the machine is being serviced, a warning signs (e.g.

"Ender Repair" or "Do Not Operate") should be attached to the electrical compartment to prevent damage or injury.

6.1 Maintenance Trouble Shooting

Warning: Before maintenance and repair, it is necessary to turn off the power, unplug the power plug and vent the air tank.

If the power cord is damaged, in order to avoid danger, it must be replaced by the manufacturer, its maintenance department or similar Professionals.

- 1. Open the drain valve at the bottom of the air tank after a week of continuous work to drain the condensate water from the gas tank. When discharging the condensate water, the air in the tank must be completely emptied to avoid danger. To prevent contamination, use containers to catch the discharged water and then take it out.
- 2. Open the silencer after a week of continuous work, and clean up the dust in the filter element to avoid blockage.
- 3. Pull the safety valve weekly to check whether it works properly.
- 4. Notices in maintenance:
- 1) Cut off the power supply before dismantling the machine and exhaust the compressed air in the
- 2) Fasteners should be tightened and replaced if damaged.
- 3) After installation, the fan should be rotated to check if there is any abnormality.

ENVIRONMENTAL PROTECTION



 $\label{thm:continuous} \textbf{Disposal The machine, its accessories and packaging materials should be sorted for}$

environmentally friendly recycling.

The plastic components are labeled for categorized recycling.

Other Maintenance Notice:

1. Keep the machine's surface clean.

Open the drain valve under the tank to drain condensation fluid once a day.

- 2. Check the oil level once a day to ensure the machine is well-lubricated. The lubricating oil should comply with DIN51506 VDL100.
- 3. Replace lubricating oil after the initial 50 running hours, then after every 300 hours.
- 4. Clean and replace the air filter once a month. The air filter is an expendable part.



WARNING



Does not direct compressed air stream at people or pets. The powerful compressed air stream can damage exposed skin and easily propel loose dirt and other small objects. Always wear eye protection that meets ANSI Z28.1 specifications.



WARNING



Keep hands and fingers away from exposed metal parts on a running air compressor. Air compressors generate significant heat during normal operation, which can cause serious burns. The compressor will remain hot for some time after operation and should not be touched or moved until cool. Pressure Settings for all air tools and air accessories.

Compressor parts may be hot even if the unit is stopped.

General Safety Information:

Do not operate unit if damaged during shipping, handling or use. Damage may result in bursting and cause injury or property damage. Since the air compressor and other components (filters, lubricators, hoses, etc.) used, make up a high pressure pumping system, the following safety precautions must be observed at all times:

- 1. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- 2. Follow all local electrical and safety codes
- 3. Only persons well acquainted with these rules of safe operation should be allowed to use the compressor.
- 4. Keep visitors away and NEVER allow children in the work area.
- 5. Wear safety glasses and use hearing protection when operating the pump or unit.
- 6. Do not stand on or use the pump or unit as a handhold.
- 7. Before each use, inspect compressed air system and electrical components for signs of damage, deterioration, weakness or leakage. Repair or replace defective items before using.
- 8. Check all fasteners at frequent intervals for proper tightness.
- 9. Keep fingers away from a running compressor; fast moving and hot parts will cause injury and/or burns.
- 10. If the equipment should start to abnormally vibrate, STOP the engine/motor and check immediately for the cause. Vibration is generally a warning of trouble.
- 11. To reduce fire hazard, keep engine/motor exterior free of oil, solvent, or excessive grease. Never remove or attempt to adjust safety valve. Keep safety valve free from paint and other accumulations.
- 12. Never attempt to repair or modify a tank! Welding, drilling or another modification will weaken the tank resulting in damage from rupture or explosion. Always replace worn or damaged tanks. Drain liquid from tank daily.
- 13. Tanks rust from moisture build-up, which weakens the tank. Make sure to drain tank daily and inspect periodically for unsafe conditions such as rust formation and corrosion.
- 14. Fast moving air will stir up dust and debris which may be harmful. Release air slowly when draining moisture or depressurizing the compressor system

Spraying Precautions:

- 15. Do not smoke when spraying paint, insecticides, or other flammable substances.
- 16. Use a face mask/respirator when spraying and spray in a well ventilated area to prevent health and fire hazards.
- 17. Do not direct paint or other sprayed material at the compressor. Locate compressor as far away from the spraying area as possible to minimize overspray accumulation on the compressor.
- 18. When spraying or cleaning with solvents or toxic chemicals, follow the instructions provided by the chemical manufacturer

Hose Precautions:

- 19. Inspect hose before use. Do not exceed working pressure marked on hose. Do not twist, bend knot, or abrade hose. Do not wrap hose around body.
- 20. Keep away from hot surfaces and chemicals

3. Specifications (Performance Data):

Item No	AC Power	Flow Rate	Tank Cap	Max Pressure	No Load speed
PMAC30-OL	2HP/1500W	100L/Min	30L	0.8Mpa/115PSI	2800r/Min

air pressure is below 4 bars, the green indicator will light up; turn on the power, press the start button and the machine will start.

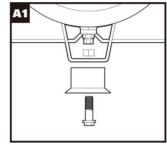
14. If you do not understand the operating procedure, study the diagram of the electrical system carefully. If necessary, contact our company's local representative for further clarification.

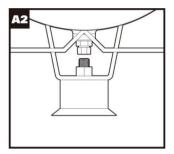
5-1-3. Operating temperature

When the room temperature is 35 °C, the maximum temperature at the machine outlet is 200 °C; the temperature of the lubrication oil may increase to 70 °C. The cylinder, cylinder cover, drainage pipe and components connected to the drainage pipe are high-temperature parts. Touching them with bare hands may result in injury.

5-2. Oil Lube Series

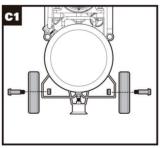
5-2-1. Machinery Operation

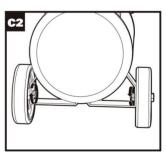




Installation:

1. Installation of shock pads (see figure A1, A2), Put the screw through the holes of the shock pad and, the bottom bracket of the body successively, and tighten the nut to fix.





Installation of supporting casters (see figure C1, C2), Put the screw through the concave hole between the left/right casters and the hole of the left/right supports at the bottom of the body in sequence, and tighten the nut clockwise for fixing .

environments may cause damage to the equipment.

1. Safety valve (see figure E) Safety valve is mainly used to maintain the stability of air pressure to protect the safety of users.

Warning! Safety valve can't be used to bleed. Drawing safety valve can easily lead to damage of pressure pump.

WARNING! Do not pull the safety valve!

2. Pressure gauge (see figure F)

The normal operation of air compressor is controlled by the pneumatic automatic switch. When the pressure reaches the maximum, the air compressor will stop automatically. When the pressure drops to the starting pressure, the air compressor will start automatically.

The working pressure of the pneumatic switch has been adjusted when the pneumatic switch leaves the factory.

It cannot be changed at will in use. The pressure is shown by the pressure gauge

3. Power on

Plug in the plug and turn on the power supply.

Note: The position of the air compressor should not be too far from the power supply, so as not to reduce the use voltage of the motor.

- 4. Turn on the vertical switch (see figure G) Pull up the vertical switch to start the machine.
- 5. Open the vent valve (see figure H) Open the vent valve to use the air compressor.
- 6. Handling of air compressor

Make sure that the air compressor is disconnected and the switch of the air compressor is in the "off" position. Hold the handle, lift one end of the air compressor, push the wheel, move the air compressor to the desired position, and then put down the handle, make sure the air compressor is on flat ground.

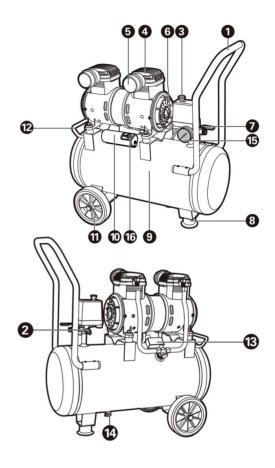
Note: Make sure you stand firm and seek help when necessary.

7. Overload reset

When the air compressor is overheated due to unstable voltage or high ambient temperature, the machine will automatically cut off the power supply to protect the motor. After this happens, the user can turn off the power switch, press the reset button, then turn on the switch again, and the machine can be used normally.

- 8. Open the discharge valve.
- 9. Plug in the power cable and tighten it.
- 10. Turn on the main power switch and the pressure switch; the green indicator on the electric compartment should light up. The machine should now be receiving electricity. If this is not the case, make sure that the power cable is properly attached and that the fuse is intact. The main circuit current is 16 A; the control circuit current is 5 A.
- 11. Press the start button on the electric compartment. The white indicator should light up and the machine should start. If the machines do not start, this may be due to the status of the overload protector. Press the overload protector reset button, and the machine should start.
- 12. Once the machine is running smoothly, let it run without loading for approx. 15 minutes. Close the air outlet valve. The air pressure in the tank will increase gradually until it reaches the prescribed pressure; the pressure switch will be active and stop the machine. When the white and green indicators turn off, the power is cut off.
- 13. If the air pressure of the tank is above 4 bars, the start button will not start the machine. Once the

4. Components List



COMPONENT LIST NAME:

1. HANDLE

2. PRESSURE-RELIEF VALVE

3. VERTICAL SWITCH

4. CYLINDER HEAD

5. SILENCER

6. POWER WIRE

7. VENT VALVE

8. SHOCK PAD

9. AIR TANK

10. CAPACITANCE

11. CASTOR

12. SUB-CONTROLLER

13. SOLENOID VALVE

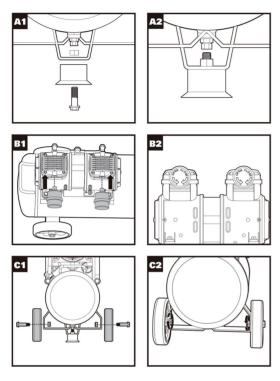
14. FLUSH VALVE

15. PRESSURE GAUGE

16. RESET BUTTON

5. Machinery Operation

5-1. Installation Instruction:



Caution: Open-case inspection

After opening the case, check whether the machine is damaged during transportation and whether the items

Listed in the packing list are complete. Any questions, please contact our company or distributor. WARNING! Do not use products that are not fully assembled.

Products not properly and fully assembled can lead to serious personal injury.

Installation:

- 1. Installation of shock pads (see figure A1, A2), Put the screw through the holes of the shock pad and the bottom bracket of the body successively, and tighten the nut to fix.
- 2. Installation of the silencer (see figure B1, B2) Screw the silencer into the cylinder head screw hole, located on the upper part of the body in the direction indicated by the arrow.

Note: After the silencer being tightened, the intake hole of the silencer should be avoided to face up, so as to avoid sundries falling into the silencer.

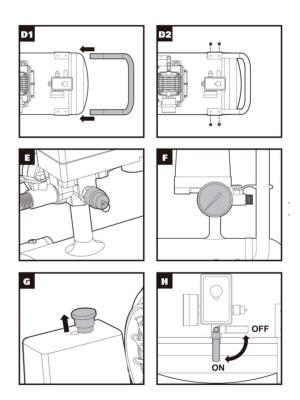
3. Installation of supporting casters (see figure, C1, C2)

Put the screw through the concave hole between the left/right casters and the hole of the left/right supports at the bottom of the body in sequence, and tighten the nut clockwise for fixing.

- 4. Installation of the handle (see figure D1, D2) Insert the handle into the handle channel in the body and tighten it with four screws
- 6. Make sure the rubber foot and the wheels are properly attached and that the machine is placed in a well-ventilated area.

- 7. Make sure that the temperature of the operating environment stays between 5°C and 40°C and the maximum humidity level is 90% (at 25°C). The voltage supply should not deviate by more than +/-10%, i.e. +/-1Hz. A voltage regulator should be used if necessary.
- 8. The machine should not be operated at an altitude exceeding 1000 meters.
- 9. The machine should not display any defects.
- 10. Check the oil meter and make sure that the oil level is correct.
- 11. When using the compressor for the first time, please follow the directions on the info plate near the oil compartment opening: take off the white cover cap, which is for transport only, and replace it with the supplied red cap. Tighten.
- 12. Check the earth cable to make sure it is properly attached.
- 13. Remove any remaining packaging materials etc. from the machine.

5-2 OPERATION



WARNING! The ambient temperature should be 0 -37 $^{\circ}$ C.

Warning! Do not touch the metal surface, beware of scalds.

Note: Before use, please check the validity of the safety valve.

WARNING! Always wear goggles. Otherwise, it may cause objects to be thrown into your eyes and other possible serious injuries.

Note: Do not use air compressor in dusty or polluted environment. Use of air compressors in such