

OIL FREE AIR COMPRESSOR

INSTRUCTION MANUAL

ORIGINAL INSTRUCTIONS FOR OIL FREE AIR COMPRESSOR,
PLEASE READ ALL MANUAL INSTRUCTIONS CAREFULLY
BEFORE OPERATING.

The company reserves clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there is any technology or software updates on our product.

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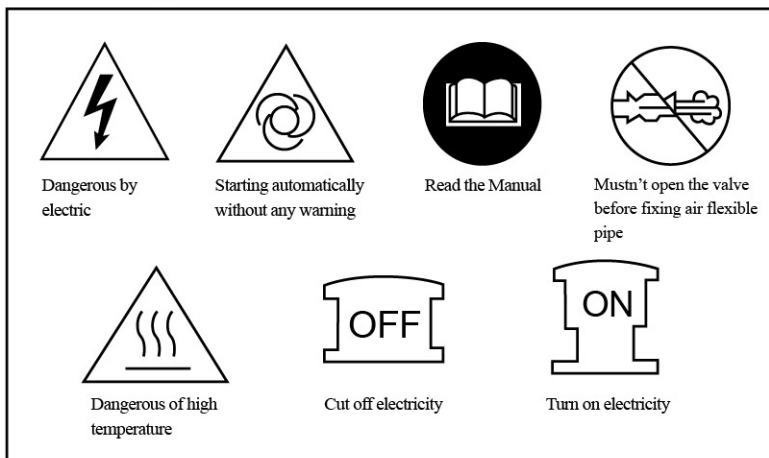
1. Introduction

1.1 Working Principle, Performance Characteristics and Uses

Oil free air compressor [rated voltage $110/(220 \pm 10\%)/380/415$]. The single-phase motor drives crankshaft connecting rod directly, making the piston reciprocate in the cylinder compression. In this case, the exhaust valve will be open and close automatically. When the pressure of the compressed air down to the rated discharge pressure 0.8MPa, the switch automatically shutdown by one-way valve into the gas tank . When the pressure down to the certain value, the switch will be open automatically. As the compressor is sealed, the noise is reduced when operating.

The series of air compressor are with the features of low noise and fuel consumption, small vibration , small power consumption, stable performance, safety and reliability . It can be used in laboratories, tire inflation, pharmaceutical, food processing, airbrush painting, chemical analysis. ren sewing machines, shoe machines and dry cleaners , gas supply, and can also be used in instrumentation, printing machinery and other equipment in small air consumption, electrical, plumbing and other maintenance of the ideal tool for cleaning dust.

2. Marks and Implications



3. Technical parameters

Model	Power (W / HP)	Voltage (V/Hz)	Exhaust Volume (L/min)	Pressure (Bar)	Tank (L)	Weight (Kg)
550-9L	550/0.75	110/220/240/380/415 50/60	110	8	9	16
750-9L	750/1		165	8	9	17
550-18L	550/0.75		110	8	18	18
750-18L	750/1		165	8	18	19
850-18L	850/1.1		165	8	18	20.5
1500-18L	1500/2		220	8	18	27.2
750-20L	750/1		165	8	20	19.5
550-25L	550/0.75		110	8	25	20
750-25L	750/1		165	8	25	21
550-30L	550/0.75		110	8	30	21.8
750-30L	750/1		165	8	30	22.8
850-30L	850/1.1		165	8	30	23
980-30L	980/1.3		180	8	30	22.8
1100-30L	1100/1.5		200	8	30	27.8
750-35L	750/1		165	8	35	27
550-40L	550/0.75		110	8	40	26
750-40L	750/1		165	8	40	27
850-40L	850/1.1		165	8	40	27
1500-45L	1500/2		220	8	45	43
550-50L	550/0.75		110	8	50	27
750-50L	750/1		165	8	50	28
1100-50L	1100/1.5		200	8	50	38
1500-50L	1500/2		220	8	50	39
550-2-50L	550*2=1100/1.5		220	8	50	62
750-2-50L	750*2=1500/2		330	8	50	64
980-2-50L	980*2=1960/2.6		360	8	50	40.6
1500-60L	1500/2		220	8	60	49
550-3-70L	550*3=1650/2.2		330	8	70	54
1500-2-70L	1500*2=3000/4		440	8	70	64
550-3-80L	550*3=1650/2.2		330	8	80	59
750-3-90L	750*3=2.2/3		495	8	90	63
1100-2-90L	1100*2=2200/3		400	8	90	66
1500-2-90L	1500*2=3000/4		440	8	90	75
750-3-100L	750*3=2250/3		495	8	100	65
750-3-120L	750*3=2250/3		495	8	120	73
1100-3-180L	1100*3=3300/4.5		600	8	180	134
1500-3-180L	1500*3=4500/6		660	8	180	136
750-4-180L	750*4=3000/4		660	8	180	133
1100-4-180L	1100*4=4400/6		800	8	180	170
1500-4-180L	1500*4=6000/8		880	8	180	172
1100-5-230L	1100*5=5500/7.5		1000	8	230	188
1500-5-230L	1500*5=7500/10		1200	8	230	190
YM550	550/0.75		110	8	/	9
YM750	750/1		165	8	/	10
YM850	850/1.1		165	8	/	10
YM980	980/1.3		180	8	/	13
YM1100	1100/1.5		200	8	/	19
YM1500	1500/2		220	8	/	20

4. Quality Assurance

When you receive the compressor, please check whether it matches the model and specification you ordered. Check whether the machine and accessories are damaged during transportation. If there is any shortage or damage, please contact the seller in time to solve.

From the date of delivery, quality assurance period is one year. Due to the failure of manufacturing quality, the company will be in strictly accordance with the following warranty for the users.

4.1 Quality Assurance is only valid in the following circumstances:

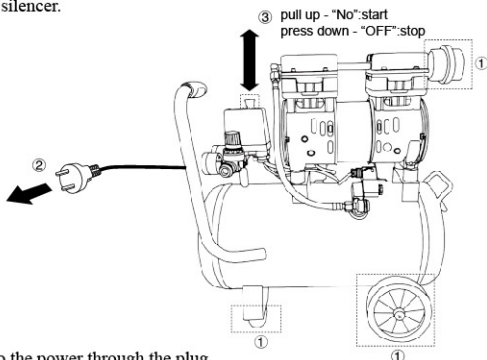
- 4.1.1 When operating and maintenance the product, users are according to "Manual" normatively.
- 4.1.2 Manufacturing number, logo is without dismantling, forging.
- 4.1.3 The product failures are not caused by improper use, as well as factors arising from force majeure.
- 4.1.4 The user need to use the parts of the seller's when maintenance.
- 4.1.5 This product is no need to add the oil, and the media of the product is air.

4.2 Quality assurance requirements:

- 4.2.1 The user can not change the use, structure and performance of the product.
- 4.2.2 The Company will not take responsibility if improper use or loss caused to third parties.

5. Operation Guide

5.1 Install foot cushion , wheel and silencer.



5.2 The air compressor connected to the power through the plug.

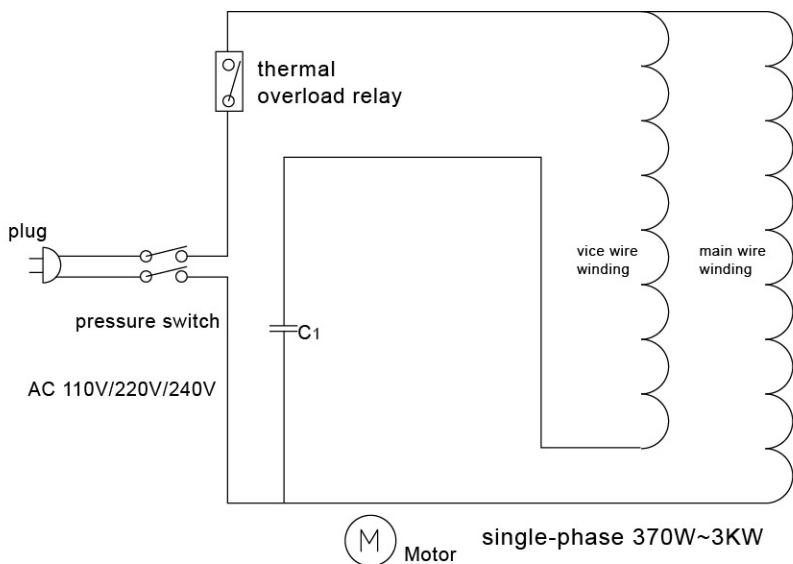
5.3 Turn pressure switch with "ON" state, turn on the power then machine could start. If not, please reduce the air tank pressure to below the 0.5Mpa .

5.4 Turn pressure switch with "OFF", cut off the electricity, it will stop to work normally.

5.5 With a safety valve in the pressure switch. When the air tank pressure exceeds 0.9Mpa, the safety valve will be warned with hums and discharge pressure automatically. When arises this condition, please check and repair the pressure switch, make sure its working pressure without exceeding the rated one.

- 5.6 Once daily off-working, please pull the thimble of separator by finger, ensured to exhaust all the water from it completely. (Maybe some customer have brought the air compressor without oil-separator, so it's unnecessary for them to comply with above mentioned requirements.)
- 5.7 The discharged air pressure could be adjusted by the knob on the AR2000 or AFR2000 regulator, with the max 0.8Mpa. It's depend on air tank pressure.
- 5.8 If need adjust the working pressure of the pressure switch, please remove the pressure switch shell, Use a screwdriver to turn the bolt M6. The clockwise to increase the working pressure, and vice versa. The max shutdown pressure is 0.8Mpa. Note: Please cut off the power supply before adjust.

6. Electrical schematic diagram



7. Usage Claim

- 7.1 Please install the silencer to the air inlet on the head of the air compressor before starting. After installing the silencer, the noise will be greatly reduced.
- 7.2 Workplace of air compressor should be dry, clean, well-ventilated
- 7.3 Air compressor can not touch water, can not be put in open-air place, can not be used in flammable, explosive, corrosive, and multi-dust environment.

- 7.4 Air compressor should be placed in vertical and hard ground.
- 7.5 The supply voltage should not lower than 10% or higher than 10% of rated voltage. For the sake of security, the air compressor should be grounding.
- 7.6 Please do not touch the components such as the host, the exhaust pipe, such as one-way valve in high temperature when revolving or after operating to prevent scalding.
- 7.7 please keep the cross section of electrical cable $\geq 2 \text{ mm}^2$, and with the proper length, should not be too long, otherwise it will not drive the machine or trip.
- 7.8 The product is a gas source for the pneumatic tools and equipment, mustn't point the discharged air to person and animals.
- 7.9 Before connecting to the power, please make sure that the machine is switched off. Please press the red switch not pull the plug directly when closing the machine.
- 7.10 Collision and inversion is strictly prohibited. Please take measures to prevent the air compressor to forces and the state of the mobile, or even safety-related incidents occurred.
- 7.11 In order to ensure continuous operation of air compressor, air compressor should install cooling fan to the host, the machine should not be running for more than two hours.

8. Maintenance

Special Attention: In order to avoid any injury, all the maintenance should be operated under out off power conditions and make sure no any pressure in the tank.

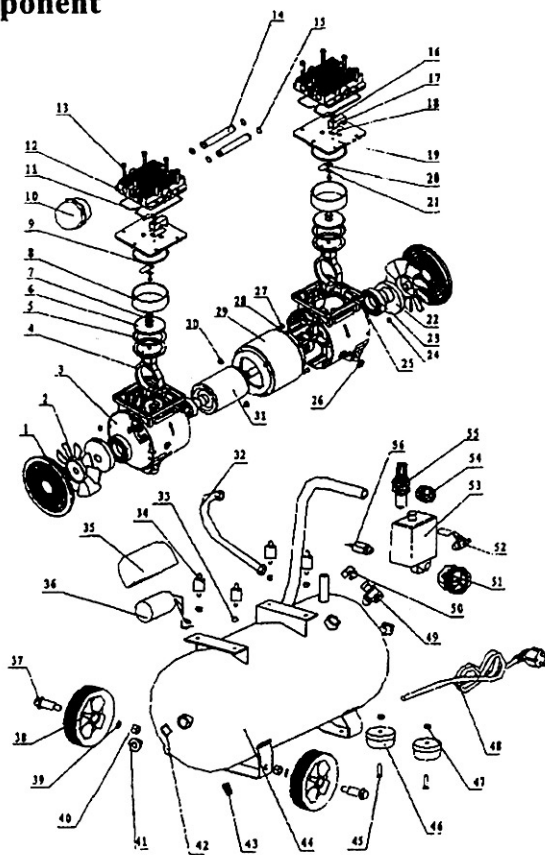
- 8.1 Please keep the clean of the air compressor by professional staff. The underground is prohibited to use the machine.
- 8.2 The sewage in the gas tank will be released, at least once a month. The pressure within the tank should be less than 0.1 MPa.
- 8.3 Please check the sensitive of safety valve regularly. When pressure inside the gas tank reaching 0.5 ~ 0.8 MPa, please pull the ring on safety valve. If safety valve can easily exhaust, and the stem can be reset immediately. The safety valve is qualified.
- 8.4 Please replace the flutter of the silencer after operating 500 hours.
- 8.5 Gas tank pressure test shall be done every year. If there are serious rust, bumps or pressure test failed, the gas tank should be disposed.
- 8.6 Please discharge the air inside the gas tank before moving the air compressor.

9. Troubleshooting

Trouble Phenomenon	Reason	Approach
The machine can not work	<ol style="list-style-type: none"> 1、 It is not electrified 2、 Fuse broken 3、 The switch is cut off 4、 Overload protector is in state of protection 5、 The switch is damaged or wire is broken off 	<ol style="list-style-type: none"> 1、 Check the plug, switch, and fuse. 2、 Replace fuse 3、 Press the switch and check 4、 Restart the machine after the motor is cool (waiting for 15 minutes) 5、 Connecting with the reliable service center.

There is the sound of electric current, but the machine can not work or run in very slow speed	<ol style="list-style-type: none"> 1、 Voltage is too low 2、 Motor is short circuit or open circuit 3、 One-way valve or pressure switch is damage. 	<ol style="list-style-type: none"> 1、 Check the voltage, not less then 10% of rated voltage 2、 Connecting with the reliable service center
Fuse and circuit breaker is broken repeatedly. Note: do not make the wire too long.	<ol style="list-style-type: none"> 1、 The fuse is not proper, or current overloaded 2、 One-way valve or pressure switch is damage. 	<ol style="list-style-type: none"> 1、 Check and replace with the proper fuse. Please do not connect to the other electrical equipment, and use a separate circuit. 2、 Connecting with the reliable service center
Overload protector cut off the electricity repeatedly	<ol style="list-style-type: none"> 1、 Voltage is too low 2、 Ventilation is poor, temperature is high 	<ol style="list-style-type: none"> 1、 Check the voltage, not less then 10% of rated voltage. 2、 Put the air compressor in a well-ventilated place
The pressure drops when turning off the compressor	<ol style="list-style-type: none"> 1、 Connecting is loose, leakage 2、 Drainage valve is open 3、 One-way valve is leakage 	<ol style="list-style-type: none"> 1、 Check and use seal gasket on the leakage place 2、 Tightening the drainage valve 3、 Removing and inspecting the one-way valve <p>Warning! Please discharge the air within the gas tank, then remove the one-way valve</p>
The gas discharged contains a large number of water	<ol style="list-style-type: none"> 1、 There is a lot of water in the gas tank 2、 temperature or humidity is too high 	<ol style="list-style-type: none"> 1、 Discharge the water in the gas tank 2、 Move the air compressor to a low temperature place, or use oil-water separator
The air compressor keep running	<ol style="list-style-type: none"> 1、 The pressure switch is damaged 2、 There is leakage 3、 There is dirty on the one-way valve 	<ol style="list-style-type: none"> 1、 Replace the pressure switch 2、 Check and Solve 3、 Clean the dirty
The air compressor is vibrating	<ol style="list-style-type: none"> 1、 Fixed bolts loose. 2、 Rubber gasket is lost or damaged 	<ol style="list-style-type: none"> 1、 Fix the bolts 2、 Replace the gasket
Output pressure lower than normal	<ol style="list-style-type: none"> 1、 Drainage valve is open 2、 Inlet air filter is plugging 3、 Connection of gas is leak 4、 Cylinder head gasket or valve gasket is damaged. 5、 The piston or cylinder is worn out 	<ol style="list-style-type: none"> 1、 Tightening the drainage valve 2、 Cleaning or replacing the filter 3、 Fastening the bolts to connect the gas 4、 Replace of gasket 5、 Replace the piston or cylinder
The magnetic valve leaks	<ol style="list-style-type: none"> 1、 The magnetic valve leaks during the compressor operation, then the magnetic valve is damaged 2、 The magnetic valve leaks after the air compressor stop, not the solenoid valve is damaged, it's the check valve that's blocked by something dirty 	<ol style="list-style-type: none"> 1. Replace magnetic valve 2. Remove the nut on the check valve, take out the spool, clean up the dirt, and then put it back

10、 exploded drawing of compressor head and name of component



(Vertical tank is the same structure as horizontal tank)

number	name	quantity
1	wind cover	2
2	left fan	2
3	left case	1
4	connection rod	2
5	piston leather cup	2
6	pressing plate	2
7	Hexagon socket head cap screws M6X20	2
8	cylinder	2

number	name	quantity
9	cylinder sealing circle	2
10	silencer	1
11	cylinder head sealing circle	2
12	cylinder head	2
13	hexagon socket head cap screws M5X50	12
14	connection pipe	2
15	connection pipe sealing circle	2
16	pan head screws with cross recess M4X6	2
17	limiting stopper	2
18	air outlet valve clack	2
19	valve plate	2
20	air intake valve clack	2
21	metal gasket	2
22	crankshaft	2
23	bearing	2
24	hexagon socket set screws with flat point M8*10	2
25	right case	1
26	lap hoop	1
27	hexagon socket head cap screws M5*150	4
28	flat gasket	4
29	stator	1
30	holding screws	4
31	rotor	1
32	high pressure soft tube	1
33	holding screws M6	4
34	shock-relief gasket	4
35	metal capacitor	1
36	capacitor	1
37	wheel axle	2
38	wheel	2
39	flange gasket	2
40	wheel axle holding screws	2
41	observing hole	2
42	O ring for observing hole	2
43	drainage valve	1
44	air tank	1
45	washer holding screws	2
46	big foot washer	2
47	foot washer holding screws cap	2
48	power cable	1
49	check valve	1
50	magnetic valve	1
51	Y50 pressure gauge	1
52	ball valve	1
53	pressure switch	1
54	Y40 pressure gauge	1
55	pressure adjustable oil water separator	1
56	safety valve	1

11. Product Certificate

Product Certificate

This product was tested, the project meet the technical standards review, confirmed and qualified in the factory

MODEL NO.

POWER

VOLUME FLOW

SPEED

SAFETY VALVE SENSITIVITY

SERIE NO.

QC

INSPECTION DATE

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