Superior quality High efficiency High service

Let our products serve the world

Product specification

Screw air compressor

Thank you for choosing our air compressor.
Customers not only buy high quality products,
but also should get a high quality of service

Let our products serve the world

Let our products serve the world
screw air compressor

Stationary screw air compressor:

AT8A,AT10A,AT15A,AT20A,AT25A,AT30A,AT40A,
AT50A,AT60A,AT75A,AT100A,AT125A,AT150A,AT175A
Configuration MAM series computer monitor

Instruction Manual

Important note

- Combined this manual and MAM series computer monitors to use.
-
- Those responsible for unauthorized reproduction will be prosecuted.

This specification describes the proper use of the compressor to ensure safe and economical operation and extend its working life.

Before the machine put into operation ,should be carefully read this manual and the MAM series computer monitor,to ensure that the compressor from the beginning to get the correct use, operation and maintenance.The protection requirements include measures to keep the compressor in good condition.

At any time, the operator should read this manual to ensure the com pressor according to the requirements of the specification to operation maintenance and maintenance of the operator records provided by the company.Comply with safety regulations relating to, including the cont ents of this manual cover mentioned.

Maintenance must be carried out by professional personnel, details, please contact the company. With the company contact type and line type marking machine nameplate.

For all of the data that is not mentioned, see "preventive maintenan -ce plan" and "main reference"Number" and so on.

The company reserves the right to amend the instructions without advance notice.

INDEX

Instruction Manual SCREW AIR COMPRESSOR

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1 Introduction

1.1 Overview

Screw air compressor is single-stage injection screw compressor driven by motor.

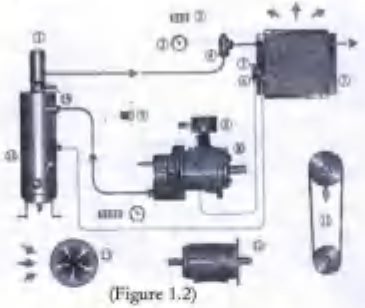
Unit installed in the sound insulation enclosure and air compressor is controlled by a MAM computer controller (Figure 1.1) .

This controller is installed on the front Door Panel and electric control board containing motor starter is installed behind the door panel.

1.2 system process

Air compressor unit consists of air end, motor, gas discharge pipe syste, Lubricating oil pipeline system, electric control system and other spare parts.

System process of compressor unit

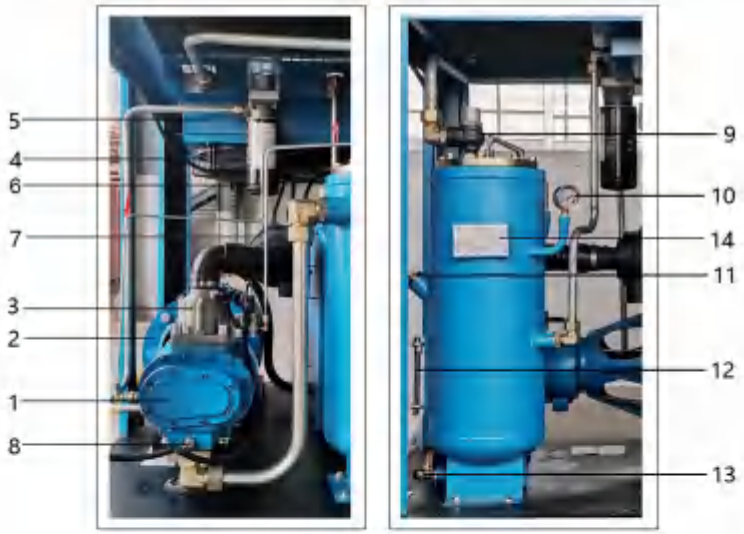


(Figure 1.2)

1-oil-gas separator	5-thermostat valve	9-control solenoid valve	
2-pressure controller	6-oil filter	10-air end	13-fan
3-Display	7-cooler	11-drive system	14-oil tank
4-Minimum pressure valve	8-air filter	12-motor	15-safety valve

1. 2. 1 Air process

Air filter suck the air and then air enter the air end through the intake valve and then air is compressed. The compressed mixture of oil and gas is separated firstly in oil and gas separator. After the separation, compressed air go through the mini -mum pressure valve and then air cooler to enter the user's gas pipeline. Minimum pressure valve can prevent pressure of air tank below a certain minimumpressure and can also prevent the air of user ' s using air tube flow back when compressor uninstall or stop.



1-air end	2-motor	3-intake valve
4-fan	5-cooler	6-oil filter
7-ai filter	8-temperature sensor	
9-min. pressure valve	10-pressure gauge	11-oil filler
12-oil level gauge	13-oil drain valve	14-oil gas separator

1.2.2 Oil system

After the compressed oil and gas mixture at a certain speed goes into the oil barrel and comes into collision with its inner wall , most of the oil separate from gas mixture by the centrifugal method and return to the air end through the second oil return pipe.

In the operation of the air compressor, when the lubricating oil temperature is below 55℃ temperature control valve will automatically open the bypass circuit. Relying on air pressure, lubricating oil flows oil to the air end and each lubricating point from the oil bucketing through the oil filter : when the temperature is increased to 55℃, tempera -ture control valve gradually closes the bypass circuit and gradually opens access circuit of oil cooler. Part of the lubricating oil cools down by the cooler. Bypass circuit is comp -letely closed until the temperature reached 71℃. Lubricating oil goes into the air end through oil cooler .

The role of temperature control valve is to maintain a constant temperature of lubrica -ting oil so that the system can achieve the best operating temperature as soon as possible and keep the temperature.

The role of oil filter is to remove metal particles in the lubricating oil, lubricate oil crac -king, reduce the wear of the bearing and rotor, improve service life.

1.3 Cooling system

The cooling system includes a rear cooler and an oil cooler. In the air cooling system, the cooling air is produced by the cooling fan.

1.4 Control and protection system

1.4.1 Automatic control air compressor

Computer controller can be programmed some set points: unloading pressure, loading pressure , shortest downtime. It can control the automatic loading and unloading pressure of the air compressor through instruction and make the pressure of the gas network ma -intained within the set range.

In order to reduce energy consumption , it can close the inlet valve of the air compress -or when the gas is small or stopped. So the air compressor under can run at light load condition and into the empty running state. Then it can achieve the purpose of energy-sa -ving . After the gas recovery, the microcomputer controller again open the main intake valve of the air inlet valve. So the air compressor can can run at full load operation and restore the load running state. At the same time, the microcomputer controlleralso super -vises the units of monitor. When the unit occurs abnormal situation(such as motor over -load, overtop temperature, etc.) it can protect the compressor from damage.

The oil-gas separation barrel is provided with a safety valve. When the pressure exceeds the set point, the safety valve can automatically open and quickly release the pressure to ensure the safety of the unit. The machine is equipped with a sound pressure relief func -tion, so in general, the safety valve will not automatically open.

1.4.2 Protection compressor

Fault shutdown

If temperature of the air outlet exceeds the set point, the air compressor will stop. This will be showed on the display screen. When the main motor or fan motor overloads the air compressor will stop.

Shutdown Warning

If temperature of the outlet exceeds the set point of fault shutdown alarm value but does not exceed the preset fault shutdownvalue, computer controller will send an alarm signal and show on the screen to alert the operator.

Maintenance alarm

Computer monitor program a lot of maintenance plans. Each maintenance plan is set time interval of the maintenance. If itexceeds the maintenance interval, the screen will prompt a message to remind the operator to operate the plan.

1.5 Electrical system

The electric system consists of the main motor, fan motor, electromagnetic valv -e,temperature sensor, pressure sensor and operation panel. In order to protect the main motor and fan motor from burning in abnormal situation the air end and fan motor' s electric current is supervised by the controller. When the electricmotor current exceeds the allowable current, the air compressor controller immediately shuts down to protect the motor and display overload on the operation panel. Electrical schematic diagram refer to the MAM controller User Manual

2 Installation

2.1 Installation suggestions

Must choose the right place to install the air compressor,It is recommended to set up a special compressor room.

1. Air compressor should be installed in a solid level of
the ground. The ground can withstand the weight of the air compressor.
2. The position of outlet valve .
3. The pressure in the conveying pipe is calculated by thefollowing formula:

Dp= (LX450XQc1.85) X (d5Xp)

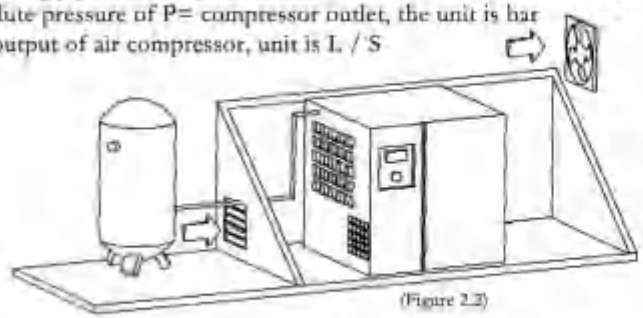
Dp= pressure (recommended maximum value =0.1bar)

L= the length of the transmission pipeline, the unit is m

D= conveying pipe diameter, unit is mm

The absolute pressure of P= compressor outlet, the unit is bar

Qc= air output of air compressor, unit is L / S



(Figure 2.3)

Recommended: Air transmission pipeline joints of air compressor , should be higher than the main air pipe network, to minimize the residua l amount of condensate in the air pipe network.

4.Ventilation: in the installation of air intake grille and ventilation fans, should pay attention to avoid causing the compressor or dryer cooling air flow, the air flow rate of air intake gate is not more than 5 m / s. Th -eair pressure drop in the cooling air duct is 30 PA, if the value is excee -ded,rhe ventilation fan should be installed at the outlet of the cooling duct. Please consult our company.

Air cooled models:

The temperature of the compressor room should be controlled, and the amount of ventilation required is calculated by the following formula:

Qv=1. 06N/dT

Qv= the amount of ventilation required, the unit is: m3/s

N= rated air compressor motor power, the unit is Kw

DT= compressor room temperature rise

Ventilation fan ventilation volume and the amount of cooling fan ventilation.

The installation of a gas storage tank (optional) shall be free of frost at all year round and shall be installed on a firm level concrete floor.

In the case of normal gas consumption, the volume of the gas network (including the storage tanks and pipelines) can be calculated in accordance with the following formula:

V= (0. 25XQcXPIXTo) /fmaxXdPXTl

V= gas network volume (L)

Qc= compressor exhaust volume (L / S)

P1= compressor inlet pressure (Absolute pressure,bar)

Fmax= cycle frequency =1 cycle /30 s)

Dp=P uninstal—l P loading (bar)

T1= compressor inlet temperature (K)

To= gas storage tank temperature (K)

2.2 Electrical connection

Under normal circumstances to provide independent switch.

Check the cable and wire is firmly connected to the electrical box.

Connecting ground wire to ground bolt.

2.3 Cable specifications

Note:

If the local electrical code is more rigorous than the following table, the cable should be selected according to the local specification.

The fluctuation of voltage can not be 5% lower than the normal voltage. In order to meet the requirements, it is necessary to select the cable in the comparison table.

Frequency (HZ)	Voltage (V)	AT-8A、AT-10A、AT-15A、AT-20A、AT-30A、AT-40A、AT-50A
IEC		
50	380	
60	415	

2.4 Icon

Read the warning labels carefully and take appropriate action.

3. Operational guide
3.1 Before the first starting-up
3.1.1 Security measures
The operator must comply with all relevant safety regulations including the descripti -on of the company's instructions.
3.1.2 User manual
Read the first mention of the relevant MAM controller User Manual and be familiar with all the functions of the controller
3.1.3 Mobile /crane
The compressor' s base plate is provided with a forklift groove, which is used for the transportation of the forklift to ensure that the teeth of the car into one side of the chassis and out of the other side. It can enhance the machine by putting the beam into the groove of the forklift to ensure that the beam can not slide and goes through the hole of the forklift homogeneously. Make chain parallel to the box board by the lifting chain expander so as to avoid damage. When placing the lifting device, the air compre -ssor should be lifted vertically. It should be smooth and avoid twisting during lifting.
3.2 First starting-up
Check the electrical connection whether it is in conformity with the relevant provisi -ons of the local electrical industry. Check the connection whether it is firm and relia -ble. It must be connected the ground and each phase is protected with inert fuse. It should install a independent switch nearby the compressor.
2. Check the oil level in the specified area.
3. To understand the meaning of each label, the label with a brief description of the air compressor operation guide and the use of air compressor.
4. Before the initial start or reuse after 3~6 months, it should be through the air inlet 3/4 L oil of screw air compressor into the compressor.
5. Close power source. The power light is bright, then the current temperature and exhaust pressure will display on the panel. If the power position does not match, LED display will show the program error. Then it should exchange any of the two power line.
6. Press "N0" to start the compressor and immediately press the "emergency stop button" . It should check whether the direction of main motor is right when the motor stops inertially. The correct direction of rotation is marked by the arrow on the head of air compressor. If the direction of rotation is wrong, it should cut off the power supply and exchange the connection position of two power supply. It should also pay attention to the direction of rotation of fan motor.
7. Start and operate the air compressor. And check whether the operation of the air compressor is normal. If abnormal, it should immediately press the "emergency stop button " and stop to check.

8. Machine halt: Press the "0FF" , then the unit goes into the process of shut -down. Then the solenoid valve will loss power and vent valve release air. The intake valve closes and unloads pressure. The motor stops several seconds later.
3.3 Daily operation
3.3. 1 Starting up
1. Open the plug screw and ball valve of the oil outlet of oil-gas separation barrel. Then discharge condensate water of the bottom of the oil-gas separation barrel after the machine halts. Then stop it until lubricated oil outflows.
2. Use hands to turn the pulley wheel to confirm the air end rotation easily.
3. Connect power source. Operate the air compressor and after cooling equipment.
4. Press the "0N" to start the compressor and observe whether the operation is normal and take notes.
5. Check the oil level after running stably. If the oil level is lower than or clos es to "the floor level of the oil level(As shown in Figure 3.1), it needs to press the "0FF" or "emergency stop button" to stop and oil the machine until the compressor runs to the oil level line.

(Figure 3.1)

6. if any abnormal situation is found, press "0FF" or "emergency stop button" immediately.It can be re boot after cleaning the failure.
3.3.2 Running condition
1. Starting up
Start up the air compressor when all preparation is completed. Then the motor stars and the the main valve of intake valve is closed. So only a small amount of air can pass through the small hole in the valve plate of the air inlet valve. Air compressor starts up under light load. The initial stage of the system pressure of oil-gas separation barrel is established.
2. Loading
Starting about 7 seconds later the motor turns into a triangle. 2 seconds later, the solenoid valve on the intake valve gets power. Then the valve is fully open and a large number of air goes into the air compressor. The air compressor ente rs into a situation of full load. When the pressure of the oil-gas separation reach es or exceeds 0.4MPa, the minimum pressure valve will open. Then the unit begi ns to supply gas outward. This state will last as long as the pressure of system is lower than the set point of the unloading pressure.

3 Unload

If the gas consumption is less than the amount of the compressor, the exhaust press ure of the unit will reach or exceed the unloading pressure.Body setting value, at this ume through the mierocomputer controller control, the solenoid valve is lost, the main valve of the intake valve closed.Stop a lot of air intake, only a small amount of air thro ugh the valve plate on the small holes into the compressor, the minimum pressure valv e clearance closed, will use the gas pipeline isolation compressor with the user, and the vent valve is opened, the oil barrel pressure release down to 0.25~0.35MPa so that the power consumption is reduced, but also to maintain the oil system in the circulation of lubricating oil.

During the unloading operation, if the discharge pressure drops to the set value of the loading pressure, the microcomputer control .Solenoid valve, solenoid valve power, the main valve of the intake valve and re open, the valve closed, the unit Into the load run ning state.

If the unloading control part of the failure or improper settings, the unit can no longer under normal system pressure unloading,The safety valve on the oil barrel will take off, release the system pressure,to avoid the risk of system pressure is too high.At this point should be immediately cut off, check the inlet valve and the controller settings whether correct.

3.3.3 Stop

1 .Normal stop

If the compressor is required to stop gas supply, the stop button should be pressed, and the compressor will enter the stop condition. When the main valve inlet valve closed, vent valve open, releasing oil barrel pressure, after about30 seconds, compressor Shut down.

2 .Fault stop

When the compressor appears any electrical and over temperature failure, the microcomputer controller will immediately stop .At this point should be based on the troubleshooting, and th -en press the reset button to restart.

3 ,Emergency stop

If any abnormal situation occurs,shall immediately press the emergency stop button, so that the compressor immediately stop to avoid loss. After shutdown in a timely manner to remove the fault, and then reset the boot.

3.3.4 Attention items in operation

1. To observe whether there is abnormal sound and vibration, if this occurs ,immediately shut down.

2 . During operation shall not be loosened in the group any pipeline, bolt and screw, please do not open or close all kinds of valves in the unit.

3 . To observe the oil level, the oil level is too low , immediately refueling.

4.The operator should do a good job of running the record.The content for the exhaust pressure exhaust temperature, system pressure, oil level, operation time etc.Being detected throughout the infrared temperature detector records of temperature and power supply voltage and current.

(1)Often check reading and information display. Usually display the compressor outlet pressure, operation state, and display the function keys for at the bottom of the display.

(2) Often check the screen, if the fault indicator is lit, it shall be troubleshooting. Refer -ence MAM control -The controller "user manual.

(3)If a maintenance schedule exceeds the maintenance period of a damaged part,screen will display maintenance information.The maintenance measures in the maintenance plan of the project or the replacement of the damaged parts and the associated clock.

Warning: Before performing any maintenance, maintenance or adjustment, the air co -mpressor must be shut down. Must let the air compressor down, press the emergency stop button, cut off the power supply, and let the air compressor pressure relief

Maintenance and repair

Note: All relevant safety precautions should be implemented,including the content; mentioned in this specification.Before starting any maintenance or repair measures: Stop the press button, Wait until the air compressor has stopped (about 30 seconds later) , press the emergency stop butto.

4.1 Electric motor:

Note: Oil do not mix different brands of oil ,different types.

Refer to the motor manufacturer for the label, or the motor's instructions to add the lubricating oil in time.Oil brands and models, each time the amount of fuel, fuel points and intervals can be found from the label and the motor's instructions.

4.2 Maintenance measures for LG models

U series screw machine is equipped with MAM computer controller(figure1.1)

In addition, check every day and 3 months, maintenance operation requirements have a plan. Each plan has a time interval that can be set at the time of the interval, all maintenance measures that belong to the maintenance plan shall be implemented. When the arrival time interval, the display will appear which maintenance plan to perform. After the maintenance interval to be set up, the detailed information in the MAM controller "user manual.

Important Note:

If you need to change the settings of the timer, please be sure to consult the company's professionals.

4.3 Preventive maintenance program

Cycle	See Chapter	Table post notes	Maintenance measures
Every day	3	-	Check oil position
Every day	1	-	Check the display
Every day	-	-	Check whether the condensate is ruled out
Every day	3	-	Check air filter maintenance indicator
Every day	3	-	Discharge condensate
Every three months	5	-	Check the cooler and clean it if necessary
Every three months	5	-	Remove air filter, using compressed air to clean and check

Maintenance plan

Running time	See Chapter	Maintenance operation
2000	4	If you use our company screw compressor oil, Change oil and filter.
500	4	As for 13bar air compressor:if use mineral oil what 4.4.2 said ,Change oil and filter.
1000	4	As for 8bar、10bar air compressor:if use mineral oil what 4.4.2 said ,Change oil and filter.
4000		Check pressure and temperature readings
4000		Perform test for indicator light and display.
4000		Check for possible leaks of air, oil and water.
4000	5	Replace air filter core.
4000		Remove and clean the floating ball valve in the oil and gas separator.
2000	5	Add lubricating oil to the engine bearing as required.
4000		Test temperature fault shutdown function.
4000	5	Test safety net
8000		Replacing oil and gas separator

Notes:

1.If the air compressor operation environment dirty, filters should be more frequent maintenance, replacement of damaged or severely contaminated filter cartridge.

2.Use of the company's original filter.

3.For models, if the use of mineral oil to replace the company's screw compressor oil, the maintenance of shorten the maintenance period in the first table to indicate the running time.

4.Recommended use of the company's screw compressor oil. When the temperature, humidity or cooling air when the situation is special, contact with the company on the oil replacement cycle.

5.When there is any leakage, should be dealt with immediately. Damaged hose or hard tube connection parts must be immediately and more change.

4.4 Oil specification

Note: Do not mix different brands of different types of oil, only can use non-toxic oil.

4.4.1 DJG screw compressor oil

It is strongly recommended that the use our company's oil injection screw compressor oil.The company's screw compressor oil special order specifications are as follows:

Order specifications	Model
15L	201509111
209L	201509119

4.4.2 Mineral oil

Although it is recommended to use the company screw compressor oil, to take the following measures, mineral oil can also be used, and please contact our company.

Must first be released the oil, and the cleaning system.

Oil filter should be replaced.

The oil must meet the requirements listed below:

High quality hydraulic mineral oil, should be anti oxidation, prevent the production of foam and corrosion resistance.The viscosity grade must be in accordance with the requirements of the ambient temperature and the IS0 3448 specification:

Ambient temperature	Viscosity grade	Viscosity index
Continued above between 25 ℃ and 0 ℃	ISO VG 68	≧95
	ISO VG 46	≧95

4.5 Change the oil

1. Running the air compressor to the warm machine, stop the air compressor, so that the air compressor system pressure relief, and cut off the power supply.

2. After full release of the oil barrel system pressure,remove the oil plug, open the ball valve on the oil pipe, the oil in barrels of oil released.Collect and rele -ase the lubricating oil from the container and handle it properly

3.Close the oil drain valve, installed oil drain plug. Open refueling mouth plug , to oil is divided into inner barrel add lubricating oil until the oil reaches the level cap, install and tighten the drain plug; be careful, not to let the dirty things in it.

4.Let the air compressor running smoothly for several minutes, check the oil level position, if the oil level is low, continue to add lubricating oil until the oil is suitable.

5.Reset oil maintenance alarm controller, see MAM "user manual.

4.6 Replace Oil filter

Compressor to run for 3 minutes.

1.Let the compressor shut down. Let the air compressor system pressure relief, and cut off the power supply.

2.Remove oil filter with professional oil filter wrench.

3.Remove oil filter

4.Clean oil filter base, to the new filter washer, the new filter is installed on the base,

5. Repeat 4. 5. 4
6. Reset oil filter maintenance alarm clock. See MAM controller "user manual" .
4.7 Maintenance requirements for temporary storage after installation
Run the compressor two times a week until the machine is warm and each time the compressor should be loaded and unloaded several times. Protective measures must be taken if the compressor is not running after storage and contact us.
4.8 Maintenance package
The company promises that the maintenance package is 100% pure diamond brand spare parts which can reduce the user's maintenance budget.All the parts are included that need to be done during the maintenance.
As for the order number of the fuel injection screw compressor maintenance packa-ge, please consult the after sales service.
5. Adjustment and maintenance steps
5.1 Air filter
1. Let the compressor shut down, cut off the power supply, loosen clip, and remove the ash box and air filter element, ,clean ash collection box and throw away the old filter.
2. Re install the new filter and ash box.
3. .Reset air filter and maintenance alarm clock. See MAM controller "user manual" .
5.2 Cooler
Ensure the cooler is cleaned to ensure the cooling efficiency. When the temperature is high, remove the dust from the cooler with a fiber brush. Do not use metal wire brush or metal product. Then cover all the parts below the cooler and blow compressed air cooler with compressed air in opposite direction of normal flow of cooling air.
5.3 Safety valve
Test:
The safety valve can be connected to a separate compressed air pipe network for testing. If the pressure reaches the specified pressure in the nameplate of valve, but the valve can not be open , please contact with the company.
Warning:
Without authorization any adjustments is not allowed without authorization. Do not run the compressor without a safety valve.
5.4 Belt of air compressor
How to adjust the belt tension of the air compressor:
1. Stop the air compressor and cut off the power supply.
2. Check the tightness of the belt. The method is: Exert a force upon the middle of the two belt wheels (about 3-4.5KG). It is better that the height is lower than the original about 10-15mm.

3. When adjust tightness of the belt , firstly loose the nut (2) loosen and then rotate the screw (5) installation plate (3) until the tightness of the belt meets the requirements. Then tight the nut (2) and the fasten the nut (4). Meanwhile the flatness of the two belt pulley should be guaranteed to be 0.03mm. (Figure 5.1)
Notice:
If the belt is too tight, it will increase the load. It is easy to make the motor heat and power consumption. If the belt tension is too large, it is easy to fracture.
If the belt is too loose, it is easy to cause the belt slipping and produce high fever. So it can make damage to the belt and make the rotation speed of the compressor instability.
6. Common faults and solutions
If the fault indicator lights up, please refer to the manual for the computer monitor.
Attention: the operator should take all the relevant safety measures including the use of the instructions described in this manual.
Mechanical failure and maintenance advice: (Figure 1.5 and 1.6)
1, Air compressor begins to run, but it is not loaded after the delay time.
a.Failure of solenoid valve .....Replace the solenoid valve
b, Intake valve stuck in closed position.....Check intake valve
c. Air hose of control leakage.....Replace leaked air hose
d. Minimum pressure valve leakage (when the pressure of gas network reduction)
.....Check the minimum pressure valve
2, Air compressor does not uninstall and safety valve is empty.
a. Failure of solenoid valve.....Replace solenoid valve
b. Intake valve does not close.....Check intake valve
3, The compressed air or exhaust gas pressure are lower than normal points.
a. the amount of gas consumed exceeds the amount of the compressor
.....Check the connection of the equipment
b. The filter element of air filter filter blocks.....Replace air filter element
c. Failure of solenoid valve.....Replace solenoid valve
d. Air hose of control leakage.....Replace leaked air hose
e. intake valve is not open completely.....Check intake valve
f. The filter element of oil-gas separator blocks.....Replace the filter element of oil gas separator
g. air leakage.....Replace leaked air hose
h. safety valve leakage.....Replace safety valve
i. The failure of compressor head.....Consulting the company
4. Safety valve emptying after loading
a.Intake valve failure .....Check the inlet valve
b.Minimum pressure valve failure.....Check minimum pressure valve
c.Filter element of oil and gas separator blocking....Change oil and gas separator blocking
D.safety valve failure.....change safety valve

5. outlet temperature of head or air is higher than normal value

a.The cooling air is not enough or cooling air temperature is too high .....Check whether the cooling air is blocked or improve the ventilation of air compressor room to avoid cooling air back flow. Check the displacement of the fan if it was installed. Check the cooling water flow. Clean the cooling system if necessary.

b.The oil level is too low.....check and correct

c.Oil cooler blocked.....clean cooler

d. After cooler blocked.....clean aftercooler

e.air compressor head failure.....contact us

Please read carefully before installing, operating or servicing unit, and follow the implementation. The following recommended safety measures are applicable to mechanical equipment using air or inert gases.Other gas equipment needs for other additional gas safety measure.More attention should be paid when using the air compressor in other application occasions that not mentioned by the manual.

In addition to the general safety rules, the following safety measures are particularly important for the stationary screw air compressor.

When the unit is running, the operator should have safe working experience, and pay attention to all the relevant safety requirements and specifications.

The owner should ensure safe operation conditions of the unit. If parts or accessories are not suitable for safe running, it should be replaced.

The installation, operation, maintenance, and repair should be operated by authorized trained professional workers.

Commonly used data (pressure, temperature, time setting, etc.) should be clearly identified. Any changes to the compressor shall be agreed by our company and be carried out under the guidance of the authorized professional guidance.

If the specification, in particular safety criterion, is not in conformity with the local regulations, it shall be executed according to the second strict terms.

As the aforementioned measures are the general specification which are general in several different models of the compressor, and therefore some of the terms may not be suitable.

Installation

In addition to the general engineering guidelines that are consistent with the local safety regulations, the following points should also be emphasized:

1. Equipment transporting compressor should be appropriate and comply with local safety regulation.Before lifting the machine, all the spare parts and supporting parts should be connected safely and reliably. Standing or staying under the lifting load are prohibited. When working in the high altitude or lifting equipment safety helmet should be wore.

2. Flange, plug, lid and dryer should be loaded before connecting pipe. Size should be correct and in line with the requirements of the pressure.

3. The unit should be placed in the low temperature and clean place. When necessary, install air suction pipe.Do not block air imports, and try to reduce the moisture of imported air.

4. Air sucked by air compressor should not contain flammable fumes or vapors, such as paint thinner, otherwise it will cause a fire or explosion.

5. The place where the air cooled units are installed should be able to obtain sufficient cooling air flow. And the cooling air should not be recycled into the air inlet.

6. Set air intake and the body should not be involved in.

7. The exhaust pipe of air pipe network after compressor connecting cooler shall be free of thermal expansion, and should not be exposed inflammable materials.

8.Ensure that no additional external force on the exhaust valve and that connecting pipe should be no additional pressure.

9. If the remote control unit was installed, there should post on the obvious signs as "Dangerous, this machine has the function of remote control and maybe it start with out notice" .

10. In order to further ensure the safety, people who control the remote control switch should take adequate security measures and to ensure when powering to the remote control unit, no one is testing machine or working. In the end, appropriate prompts should be posted on the boot device.

11. For units equipped with a self starting and shutdown system, the label that "this machine may be automatically activated without notice," should be posted near the dashboard.

12. As for a multi unit system, manual valve should be installed in each unit to isolate the compressor and check valve can not be used as a pressure system.

13. Safety, protective or isolation device of unit can not be removed or change. If air pressure storing in pressure vessel or auxiliary equipment installed outside the unit is higher than atmospheric pressure , pressure relief devices or other protective devices must be installed.

14. obvious signs should be posted on pipe network which is more than 80 degrees Celsius temperature or easily to be touched, parts which should be equipped with pr otective devices or be insulated and other high temperature pipes.

15. If the ground is not horizontal or easily to tilt, please contact the company.

16. Power connection should comply with local regulations,and units should be grou nded and be protected short-circuit fuse.

Operation

1. The air hose should be of the correct size and suitable pressure. for wear, damage or aging hose, should use the model, size, fasteners and connectors correct hose. Do not use wear, damage or aging hose. Flexible hoses for models, sizes, fasteners and connectors shall be used。 When blowing with air hose or pipe, the firmed open end should be ensured otherwise free end will shake and cause damage. Hose should be fully discharged before unloading pressure.Do not play compressed air.

Don't use compressed air arbitrarily. Don't align it with the skin or human body. Do not use it to blow clothe. If you use compressed air blowing down equipment, be sure to be careful and wear protective glasses.
2. The compressor can not be used for the equipment which is used for breathing air. If you want to reach the standard of breathing, compressed air should be fully purified according to local standards and regulations.
3. It is not possible to run the machine in an environment where it is possible to inhale flammable gases or toxic gases.
4. When the pressure is lower or higher than the limit value of the main parameter table, the unit can not run.
5. When the unit is running, the unit door should be closed. The door can only open when workers inspect the machine. Ear protection should be worn when the door is opening.
6. When the environment or the indoor noise is greater than 90dB (A) , workers should wear ear protection.
7.Periodic inspection items:
a. guard device is secure and stable.
b. hoses or pipes in good condition, without collide.
c. no leaks
d. No loosen fasteners
e. electrical components in good and safe condition . .
f. the pressure relief devices and safe valve with no dirt or clogging.
g. exhaust valve and pipe safety nets, such as pipes, Couplings, fittings, valves, hoses and so on are intact.
8. If the cooling air compressor for the warmed air heating systems, such as heating plant, should prevent air pollution and respiratory pollution.
9. Do not reduce or move the sound insulation.

Maintenance

Maintenance work should be carried out under the supervision of professional and technical personnel.
1. Use the correct maintenance tools.
2. Use high-quality equipment.
3. In addition to routine . Maintenance work at the unit should shutdown the state, and the main power is turned off, the cooling machine shoud be down. Measures must be taken to avoid the risk of a sudden start. In addition, warning signs, such as "working, do not start." should be fixed nearby the start device.
4. Before replacing the pressurized parts ,pressure source unit mustbe effectivelyput isolated unit, and relieve he system pressure.
5. Parts can not be cleaned with flammable solvents or carbon terrachloride . Pay attention to safety, prevent the cleaning liquid produces toxic vapor.
6. Maintenance should be clean .Use a clean cloth, paper or tape to cover parts and openings to keep clean.

7. Can not do welding or heating job near oil system accessories,thetank shall be th -oroughly cleaned, such as steaming cleaning. Pressure vessel can not be welded or repaired. If signs or suspected internal components overheating,machine should be shut down.Before sufficient cooling ,do not open the door,that can prevent air from entering and causing oil vapor. Not use an open flame to check the machine or inter -nal sources of pressure vessels.
8. Unrelated parts, tools or rags, etc. may not be left on the machine or the compressor.
9. After repair or overhaul, before the unit put into operation , you should make sure sets of the pressure, temperature, and time is right , control and shutdown devices function correctly.
10. When replacing the separator core, make sure the interior of exhaust pipe and the oil separator without carbon,.If excessive carbon ,you need Clean up.
11. When clearing machines with steaming, take protective measures of the motor, air filters, electronic control unit to prevent moisture from entering.
12. Ensure that the cabinet and insulation materials of the compressor inlet, exhaust system in good condition and, if any damaged, Replace it with our co -mpany's high-quality materials, to ensure that no increase in noise.
13. do not use aggressive solvents, to prevent damage to air pipe materials, su -ch as poly-carbonate material.
14. When encounted with R22, R12 and other refrigerants, must pay attention to the following safety precautions:
a. Do not breathe in refrigerant vapor .The workplace should be well ventilat -ed and, if necessary, use respiratory protection device.
B must wear special gloves, if skin met the refrigerant, immediately rinse with water, if liquid refrigerant through the clothes hit the skin,clothes can not be torn of changed . rinse with a lot fresh water , until the refrigerant is complet -ely obliterated, then to the hospital for emergency treatment.
c. wear a helmet
15. Avoid hand touche to the hot parts , such as: oil discharge process.

Note: The stationary compressors driven by internal combustion engine, must be taken more safety precautions such as the installation of a spark arr sting device, oiling security device and so on. Please consult to the Company.

As a result of ignoring these safety instructions, common security sense or any damage and injury caused in the transport, operation, maintenance or repair by ignoring safety instructions, the Company does not assume any resp -onsibility, Even they have not been described in details in this book.