

Air ring vacuum pump technical manual

Thank you for choosing a gas ring vacuum pump!

In order to ensure the normal working life of the ring vacuum recorder, and at the same time ensure the safety and production connection of your machine, please submit this notice to the personnel of your company's technical department and the end user to maximize the performance of the machine.

[Pressure and maximum pressure of gas ring vacuum pump]

Pressure is the basic parameter of ring vacuum pump, ring vacuum pump is famous for its relatively high pressure. At present, the pressure range that a single ring vacuum pump can provide is 7-1001; ping.

When the air inlet or outlet pipes are fully needle-closed, the maximum negative pressure or maximum positive pressure of the vacuum pump can be obtained. Under normal circumstances, we do not recommend this use. If it is necessary,

Please use a pressure relief valve and install it correctly to protect the life of the gas ring vacuum pump. The use of the pressure relief valve should refer to the corresponding capacity of the lucky section.

[Flow rate and maximum flow rate of gas ring vacuum pump]

Flow rate is also the basic parameter of gas ring vacuum pump. In this regard, we have many models, which can provide different flow rates under the same power. At present, the flow range provided by the air ring vacuum recorder is 47-23301113%

The maximum flow rate of the fan can be obtained when the air inlet and outlet pipes are in a fully open state. Except for on-site ventilation, it is impossible to obtain this parameter in other occasions.

[The relationship between pressure, flow and power of ring vacuum pump]

Pressure and liquidity are complementary, they are a contradictory relationship. Specifically, the flow rate of the ring vacuum pump will decrease with increasing pressure, but its practical power will increase with increasing pressure.

If in the selection, we first select the use flow along the pressure coordinates on the "pressure ~ flow curve graph", and then get the "use pressure and use flow responsibility straight line intersection", we use this "working point" as the benchmark, Select the gas ring vacuum record corresponding to the curve above the operating point. Under normal circumstances, the ring vacuum fruit selected in this way can meet your site requirements.

Under normal circumstances, other similar products are marked with the maximum pressure and maximum flow that can be provided. When we select the gas ring vacuum pump, we determine the model of the gas ring vacuum pump "according to the use pressure and use flow". So you need to pay attention to the difference. Also, because the positive pressure and negative pressure provided by the same type of air ring vacuum recorder are sometimes different, you should also pay attention to the corresponding curve when selecting the model.

The performance curve of the air ring vacuum pump is measured under the working conditions of 150 air extraction and exhaust pressure 10 | 3 grams, the tolerance is ±10%, the suction air and the ambient temperature do not exceed 25-0, and it can still reach The total pressure difference shown in the graph.

The pressure and flow shown on the nameplate of the vacuum pump are the normal working pressure and maximum flow that the gas ring vacuum pump can provide. Please pay attention.

[Power connection of gas ring vacuum pump]

When you receive our gas ring vacuum pump, please connect as follows. Wiring must be carried out by professional electrical/technical personnel with corresponding qualifications!

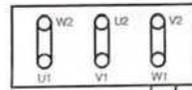
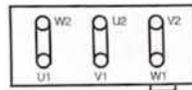
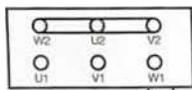
If you disassemble the wiring box of the 3807 air ring vacuum pump, our factory default wiring method is 3-phase 380V wiring, you can directly connect the 3-phase 380V power supply. If you use other voltages, please remove the nameplate and do the corresponding treatment.

Appearance is star connection: straight 4*3 phase 3807, in (1), VI, mostly used for three-phase low-power high-end gas ring vacuum pumps.

The factory is delta connection: directly connect to 3-phase 3807, in (1), VI, training; It is mostly used for three-phase high-power high-end gas ring vacuum pumps.

If it is a high-end gas ring vacuum pump with 2 tearing stages, after disassembling the junction box, first confirm a reference direction, the air barrel is on the left, the air inlet is on the right, counting from the right to the left, and the top row of terminals

The first and second terminals are 220V power terminals.



The factory is "delta" connection: directly connected to single-phase 220V, in V1, crucible; mostly used for single-phase low-power high-end gas ring vacuum pumps.

It is strongly recommended that when using the air ring vacuum pump, do not reverse the ring vacuum pump for continuous operation. This may cause some unpredictable failures.

If the reversal is necessary and the reversal time is very short, then, for the high-end gas ring vacuum pump with three-phase power supply, you can directly exchange any two power cords by changing the head and tail positions of the secondary winding diagram to change the gas. When the rotation direction of the ring vacuum pump is reversed, the efficiency becomes low.

Sometimes, you receive our high-power gas ring vacuum pump, but the line diagram is star connection (three-phase voltage) when leaving the factory, no Star-triangle depressurization and decompression start can be used. It is recommended that you start the vacuum pump in an empty plant.

Before electrical wiring of the air ring vacuum fruit, please make sure that the power supply voltage is consistent with the operating voltage of

f the motor, and whether the motor terminal connection method is correct (refer to the coil voltage withstand method marked on the nameplate", the wiring terminal is correct. It has been fixed firmly, confirm that there is no short circuit, to avoid electricity and install the ground wire."

The load current of the motor will change with the change of the air pressure used by the high-reliance ring vacuum unit. When wiring, install an overload protection switch suitable for this model and use it under the rated full load current (8) to avoid the motor burn. (For the rated full load current, please refer to the value indicated on the motor nameplate.)

[The temperature of the gas ring vacuum pump]

Under normal circumstances, our air ring vacuum pumps allow the inlet air temperature to be below °C. In the case of special beads, the maximum inlet air temperature is 70 °C. At this time, special customized machines are required.

If you use our gas ring vacuum pump for the following occasions, vacuum adsorption, vacuum lifting, vacuum handling, industrial dust collection, vacuum feeding, waste collection, air knife drying, water treatment aeration, electroplating stirring, positive pressure delivery, or similar to the load situation, then in your case, the temperature of the air ring vacuum pump will be relatively high, especially the temperature of the air barrel surface, which may reach 90-100 degrees, which is normal.

When used in the above occasions, it usually takes about 5-40 minutes, and the temperature will rise to 90-100 degrees. Depending on the pressure used on the site, the heating time will be different. When the needle is closed, the large branch will be about 10 minutes. , Human hands cannot touch the surface of the air barrel, and the temperature is probably above 80 degrees.

When using in the above occasions, we ask you to check whether the surface temperature of the motor is below 70 degrees and whether the running current of the motor is within the current range indicated on the nameplate. As long as these two items meet the requirements, it is normal, please rest assured use! And you can let the gas ring vacuum pump run continuously without stopping for 24 hours.

As the air ring vacuum pump may produce high temperature during operation, avoid contact with the shell to avoid burns.

If the on-site working conditions may cause the gas ring vacuum pump to generate high temperature, please avoid using the gas ring vacuum pump in a small enclosed space with no air circulation.

[Using environment of gas ring vacuum pump]

The ambient temperature of the bad vacuum pump is between 10~50 degrees. If you need to use it on other sites, please do the corresponding measures.

[Filter of gas ring vacuum pump]

As long as there are foreign objects such as dust on the use site and may be sucked into the inside of the gas ring vacuum pump, you need to install a filter. In principle, we recommend that filters should be installed and used in any place of use.

For different sites, we provide filters with different filtration accuracy to ensure that we meet the needs of our customers. The precision of our series of filters is 100 mesh, suitable for general industrial sites; the old series is 1000 mesh, suitable for industrial sites with more dust or high air requirements.

If it is an industrial vacuum cleaner or body conveying and other scenes, you cannot directly use the filter provided by us! Industrial vacuum cleaners or similar machines need to be installed in front of our Jiang series filters with a bag filter device, or a separate filter

Special attention should be paid to the hard objects, dust particles, fiber pushers, water droplets, etc., which should be removed before the air enters the human body. They can be treated with dust bags if they are used in the pipeline (especially this form) Filter device, in order to avoid 1 pressure loss, please use a large-scale filter device, and clean the dirt in the filter device regularly.

Regarding the service life of the filter, do we add? The series of filters can be removed and placed directly under the faucet for cleaning; while the old series of filters can only be cleaned with wool, and the filter element should be replaced regularly. Under normal circumstances, a new filter element needs to be replaced after three months of use; the longest period of use? It is six months; if the dust on site is very large, the time for changing the filter element needs to be processed in advance according to the situation.

[Relief valve of gas ring vacuum pump]

The pressure relief valve is an unloading valve. When the pressure of the high-end gas ring vacuum pump exceeds the pressure of the relief valve, the relief valve will automatically open to release the excess pressure to prevent the high-end gas from being broken. Empty pump.

It has two methods of use: positive pressure and negative pressure. When you use negative pressure, the pressure relief valve is installed on the air inlet pipe with a three-way, and at the same time, according to the dust situation on the site, install the corresponding filter at the air inlet of the pressure relief valve; and when you use positive pressure, three pressure relief valves are installed on the air outlet pipe. The pressure relief valve has a pressure regulating wire on the door, and the working pressure needs to be adjusted during use. Tighten it to the inside, the protection pressure increases; loose it to the outside, the protection pressure decreases,

Whether the valve is working properly. If you have installed our pressure relief valve correctly and find that the pressure is not enough, this may be due to the low power selection. It is recommended that you change to a higher vacuum recorder, and then install the pressure relief valve and other related pressure valves. One accessory is a loss-of-voltage protection switch, which will greatly reduce your loss in the most unlikely situation. We strongly recommend that you choose to install it.

Condition material-Karma is like art"

[Muffler for air ring vacuum pump]

The built-in silencer of the air ring vacuum pump has reduced the noise of the air ring vacuum pump to a lower level.

If you have higher requirements on noise, please use our old series of external silencers. Under normal circumstances, the use of our series of external silencers can reduce the loud noise.

Where the 5 series external ugly silencer is installed at the end of the air inlet or outlet duct (the farthest end of the air inlet or outlet from the air ring vacuum, in general, only one installation is required." If the suction function is used, the silencer Install at the end of the air outlet pipe <The farthest end of the air outlet of the vacuum pump from the air valve. If the blow-up function is used, install it in the opposite way.

If you use the 5 series of external silencers, it still cannot meet the noise requirements of your site. We recommend that you make a soundproof box according to the conditions of the equipment itself. Specifically, use a box to leather the air ring vacuum pump, and then Fill the six sides of the box with silencer cotton. (Under normal circumstances, you can use denser sound-absorbing cotton with a thickness of 20 inches and a peak height of 5 grams. At this time, pay attention to the ventilation and heat dissipation of the air ring vacuum pump. The minimum distance in all aspects, the temperature of the blast air, etc.

[Piping method and movement attention of gas ring vacuum pump]

Since high temperature may be generated during the operation of air ring vacuum recording, it is necessary to use high-quality durable materials that can withstand the pressure and high temperature at the same time when piping. The yttrium must be sure to avoid rabbits and full air and no foreign objects in the pipeline. 5

Do not allow the pipeline to operate completely closed. When the pipeline has a necking, make sure that the maximum necking cannot exceed the original 2/3, and a pressure relief valve needs to be installed. If it must be close to the closed pressure during use, a pressure relief valve must be installed.

If the pipeline is running under closed conditions, consider that the temperature of the high-end gas ring vacuum pump rises sharply, and continuous operation should be avoided. If the air operates intermittently, or the positive and negative pressure of the pipeline needs to be continuously switched, the air valve switching method should be used.

If the air ring vacuum recorder is installed outdoors, please add a canopy above it to avoid rain. The cooling air vent should prevent foreign matter from being sucked into the blocking channel.

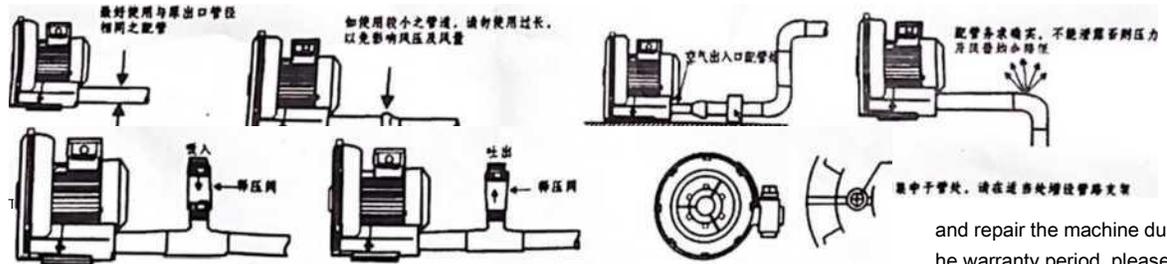
Vibration locations need to be equipped with anti-vibration measures. Pay attention to connecting pipes such as hoses and rubber flanges to avoid damage to the Gaorui gas ring vacuum pump due to external vibration.

Clean regularly clean the inside and outside of the Gaorui air ring vacuum pump (especially the air passage of the cooling fan) to remove the dust on the surface. If a large amount of dust is accumulated, the heat dissipation effect will be worse, and then the temperature will increase, the air volume will decrease, and the vibration Increase and cause failure.

Bearings, oil seals, silencers, etc. are consumables, so they have a certain life span and need to be replaced regularly. At the same time, Ye

Lun, Wai Ye, metal mesh, etc. also need to use urine for regular history changes.

If the operation is not smooth or abnormal noise occurs during operation, please turn off the power for inspection. If you need to disassemble



If you have any questions, please call the service hotline: 18653153966. Our professional technicians will be happy to serve you.

and repair the machine during the warranty period, please notify our service personnel.

Of Guangxu Qi Lin Yi Qin 4 Forces Total Forces 4 Paralysis Phosphorus 1.
Dou Qin Yu Yi Yu Tao II