Thank you for choosing our gas ring vacuum pump!
In order to ensure the normal working life of the air ring vacuum pump, and ensure the safety and continuous production of your machine, please pass this note to the technical department personnel and the end user of your company, so as to give full play to the performance of the machine.

[Pressure and maximum pressure of air ring vacuum pump]

Pressure is the basic parameter of air ring vacuum pump. Our air ring vacuum pump is famous for its relatively high pressure. At present, our air ring vacuum pump can provide pressure range of 7-100kPa.
The maximum negative pressure or the maximum positive pressure of the air ring vacuum pump can be obtained when the air inlet or outlet pipe is completely closed. In general, we do not recommend this use. If necessary, use a pressure relief valve and install it correctly to protect the life of the gas ring vacuum pump. Please refer to the corresponding section for the use of pressure relief valve.

[Flow and maximum flow of air ring vacuum pump]

The flow rate is also the basic parameter of the air 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 of our air ring vacuum pump can provide is 47-2330m/h.
When the inlet and outlet pipes are fully open, the maximum flow of the fan can be obtained. Except for field ventilation, it is impossible to obtain this parameter in other situations.

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

Pressure and flow complement each other, they are a contradictory relationship. Specifically, the flow rate of an air-ring vacuum pump decreases as the pressure increases, while the power used increases as the pressure increases, and vice versa.
If the selection, we first along the "pressure flow chart" on pressure coordinates are chosen to use, and then along the flow coordinate chosen using flow, so it is concluded that using pressure and use flow line intersection ", we in the "working point" as a benchmark, select above the working point of the curve of the gas ring vacuum pumps. In general, the air ring vacuum pump selected in this way can meet your on-site use requirements.
In general, other similar products are marked with the maximum pressure and maximum flow that can be provided, but when we choose the air ring vacuum pump, it is "according to the use of pressure and use of flow" to determine the type of air ring vacuum pump. So, you need to be aware of the difference. And because the positive pressure and negative pressure that the same type of gas ring vacuum pump can provide will sometimes be different, we should also pay attention to the corresponding curve when selecting the type.

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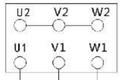
The performance curve of the air-ring vacuum pump is measured under the suction condition of 15℃ air and exhaust pressure of 1013mbar. The tolerance is ±10%. When the suction air and ambient temperature do not exceed 25℃, the total pressure difference as shown in the graph can still be reached.

The pressure and flow indicated on the nameplate of the air ring vacuum pump are the normal working pressure and the maximum flow that the air ring vacuum pump can provide, please note.

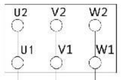
[Power wiring of air ring vacuum pump]

When you receive our air ring vacuum pump, please connect as follows. Wiring must be carried out by qualified professional electrical technicians!

If you open the junction box of the 380V air-ring vacuum pump, our factory's default wiring mode is the 3-phase 380V level wiring mode, and you can directly connect the 3-phase 380V power supply. If other voltages are used, please make corresponding treatment as indicated on the nameplate.



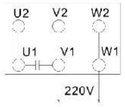
Y/ star connection



△/Triangle connection

Factory for the star connection method: directly connected to 3 phase 380V, in U1, V1, W1: mostly used for three-phase low power gas ring vacuum pump.

Factory for the triangle connection method: directly connected to 3 phase 380V, in U1, V1, W1: mostly used for three-phase high-power gas ring vacuum pump.



If it is a single-phase 220V gas ring vacuum pump, the factory is a "triangle" connection method: directly connected to single-phase 220V, in V1, W1: mostly used for single-phase low power gas ring vacuum pump.

When wiring, the power supply voltage and the motor voltage should match to ensure that the wiring terminals are tightened, no short circuit phenomenon, to prevent leakage and install the grounding wire.

If the reversal is necessary and the reversal time is short, then for a gas-ring vacuum pump using a three-phase power supply you can directly exchange any two power lines in order. For single-phase power supply gas ring vacuum pump, we suggest that you change the direction of choice of gas ring vacuum pump by changing the position of the head and tail of the secondary winding. Note: Inversion runtime becomes less efficient.

The load current of the motor will change with the air pressure used by the air ring vacuum pump. Overload protection switch suitable for this machine should be installed during wiring and used at the rated full load current (A) to avoid motor burning down. (Refer to the motor nameplate for rated full load current.)

[Temperature of air ring vacuum pump]

In general, the air inlet temperature of the air ring vacuum pump is allowed to be below 50 degrees, and the maximum air inlet temperature is allowed to be 70 degrees in special circumstances. At this time, special custom-made machines are required.

If you put the gas ring vacuum pump is used for the following occasions, vacuum adsorption/vacuum lifting/handling/industrial vacuum aspiration/vacuum feed/waste collection/air knife blow dry/water treatment aeration/plating/positive pressure conveying, stir or similar load situation, so in your this kind of condition, the temperature of the gas ring vacuum pumps will be high, especially the wind on the surface of the barrel temperature, It could be 90-100 degrees, which is normal.

When used in the above occasions, the temperature will rise to 90-100 degrees in about 15-40 minutes, and the time of heating will vary according to the different pressure used on site. When fully closed use, about 10 minutes, hands can not touch the surface of the bucket, the temperature is about 80 degrees above.

In the above occasions, you need to check the temperature of the motor surface is not below 70 degrees, the motor running current is not in the current range marked on the nameplate, as long as these two meet the requirements, it is normal, please rest assured to use! And you can keep the air ring vacuum pump running for 24 hours without stopping.

Because the air ring vacuum pump may produce high temperature when running, it should be avoided to contact its shell to avoid scalding.

If the field conditions may cause high temperature of the air ring vacuum pump, attention should be paid to avoiding the use of the air ring vacuum pump in a narrow, closed space with no air circulation, and strengthening cooling measures at the same time.

[The use environment of air ring vacuum pump]

The air ring vacuum pump is suitable for the industrial site within the humidity range of -10~+50 degrees. If you need to use other sites, please take corresponding measures.

[Air ring vacuum pump plus accessories]

[Filter] : As long as there is dust and other foreign bodies in the field, and it may be inhaled into the pump body of the air ring vacuum pump, the filter needs to be installed. In principle we recommend that filters be used at any site.

True to different sites, we provide different filter precision filters to ensure that we meet the needs of our customers. Our filter has a filtration accuracy of 100 mesh, which is used in general industrial sites. The filtration accuracy is 1000 mesh, which is used in industrial sites with more dust or higher air requirements.

[pressure relief valve] : the pressure relief valve is a unloading valve. When the pressure of the air ring vacuum pump exceeds the pressure set by the pressure relief valve, the pressure relief valve will open automatically to release the excess pressure to protect the air ring vacuum pump.

When you install the pressure relief valve correctly, you also need to check regularly whether the pressure relief valve works normally. If you find that the pressure is not enough after correctly installing our pressure relief valve, it may be that the power selection is small. It is suggested that you replace the gas-ring vacuum pump with a higher power level, and then install the pressure relief valve.

[Muffler] : The muffler built into the air ring vacuum pump has reduced the noise level of the air ring vacuum pump to a lower level. If your site requires more noise, please use our external silencer. Under normal circumstances, the use of our external silencer can reduce the noise by about 10%dB (dB).

If the use of external silencer, or can not meet the noise requirements of your site, it is suggested that you make a sound insulation box according to the conditions of the equipment itself. At this time, we should pay attention to the ventilation and heat dissipation of the air ring vacuum pump, the minimum distance in all directions, the temperature of the inlet air, etc.

[Piping mode and operation attention of air ring vacuum pump]

Because the air ring vacuum pump may produce high temperature when running, it is necessary to use high-quality durable materials that can withstand the pressure and high temperature at the same time when piping. The piping must be sealed well, and the pipeline should avoid air leakage and foreign bodies in the pipeline.

Do not let the pipeline fully closed operation, when the pipeline has a shrinkage, make sure that the maximum shrinkage should not exceed the original 2/3, and need to install the pressure relief valve. Be sure to use a pressure relief valve if it must be used close to the closing pressure.

If the pipeline is closed, continuous operation should be avoided in consideration of the sharp rise in the temperature of the air ring vacuum pump. If the air is intermittent operation, or the positive and negative pressure of the pipeline needs to be constantly switched, it should be switched by the way of air valve.

If the air ring vacuum pump is installed outdoors, please install a canopy above it to avoid rain. The cooling vent should prevent foreign matter inhalation from blocking the channel.

Please install the air ring vacuum pump in the place without vibration. If it must be installed in the place with vibration, anti-shock measures shall be added. Be careful to use hoses and connection lines such as rubber flanges. In order to avoid the air ring vacuum pump by the external vibration damage.

Please regularly clean the air ring vacuum pump inside and outside (especially the air passage of the cooling fan) to remove the dust on its surface. If a large amount of accumulated dust, the heat dissipation effect will become worse, and then the temperature rises, the air volume decreases, the vibration increases and causes the failure.

Bearings, oil seals, silencers and other consumables have a certain life and need to be replaced regularly. At the same time, impeller, shell, metal mesh also need to be replaced regularly according to the use of the environment.

If the operation is not smooth or there is abnormal noise, please turn off the power for maintenance. Please inform our service staff if you need to disassemble and repair the machine within the warranty period.