

# **XDGM-20 Vacuum Diaphragm Pump**

## **User Manual**



Please read operating manual before installation and operation.

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## Contents

I 、 Introduction.....	1
II 、 features.....	1
III 、 DP-01-20 Specification.....	2
IV 、 Naming Rule.....	3
V 、 DP-01-20 Dimensions.....	3
VI 、 Installation.....	4
VII 、 Operation.....	5
VIII 、 Service and Maintenance.....	5
IX 、 Symbols and Markings.....	7

## I. Introduction

XDGM-20 vacuum diaphragm pump is a gas-based two-stage pump, all parts in contact with the gas are PTFE material, high corrosion resistance, wide application, it can completely replace the water circulation pump, suitable for Chemical, pharmaceutical, petrochemical and other industries on the corrosive gas treatment, such as suction filtration, vacuum distillation, rotary evaporation, vacuum concentration, centrifugal concentration, solid phase extraction.

## II. Features

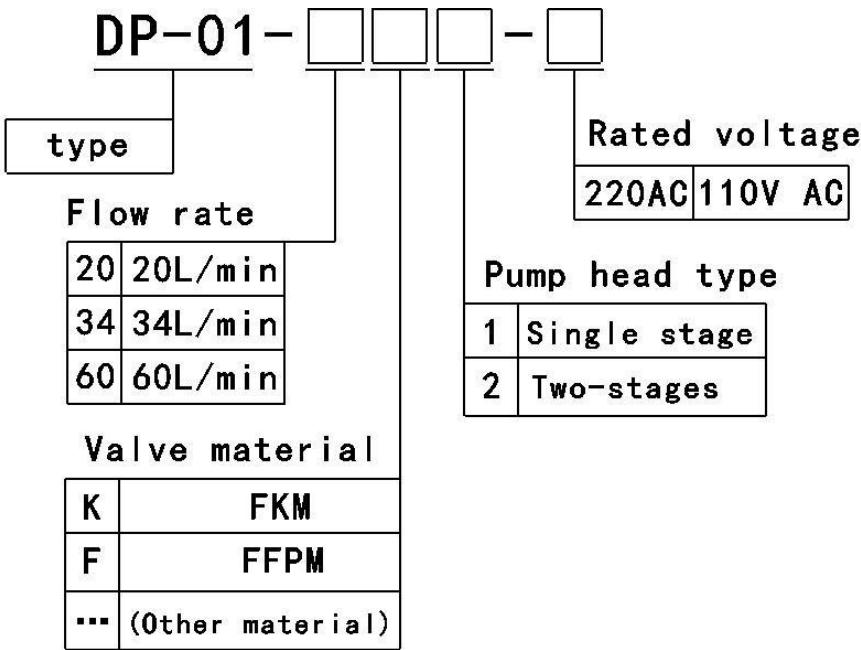
1. Resistant to chemical corrosion: Corrosion-resistant vacuum pump using a special diaphragm (membrane surface PTFE coating) and the pump head design, including all the joints and pipelines, gas contact with the parts are imported PTFE material, so Resistant to most of the corrosive gases; the same time, electrical switches and the shell also do anti-corrosion treatment, in particular, the transmission mechanism and the circuit part of the use of corrosion-resistant materials to form a closed space, completely isolated from the external environment so that the vacuum pump is not only resistant to corrosive media, But also perfect for corrosive environment, completely solve the problem of chemical resistance of the vacuum pump.
2. Pollution-free, maintenance-free: diaphragm vacuum pump can be completely recovered solvent to eliminate toxic and hazardous organic solvents on the environment pollution and the health hazards to the operator and nearby people, even if the mixed solvent can be highly recycled; diaphragm pump It is a dry, dry, oil-free pump that keeps laboratories clean and quiet, eliminating the need for regular cleaning, pipe change, and water changes. The diaphragm vacuum pumps are 100% maintenance-free.
3. Low noise, low vibration: corrosion-resistant vacuum pump motor direct drive power transmission, no intermediate transmission parts, coupled with the diaphragm low-stroke, low noise characteristics, so the product noise can be maintained below 70dB.
4. Overheat protection: Each product is equipped with temperature protection switch, when the internal body temperature is too high will automatically shut down, wait for the temperature to cool and then start their own to ensure the stability and safety of the system.

### III. XDGM-20 Specification

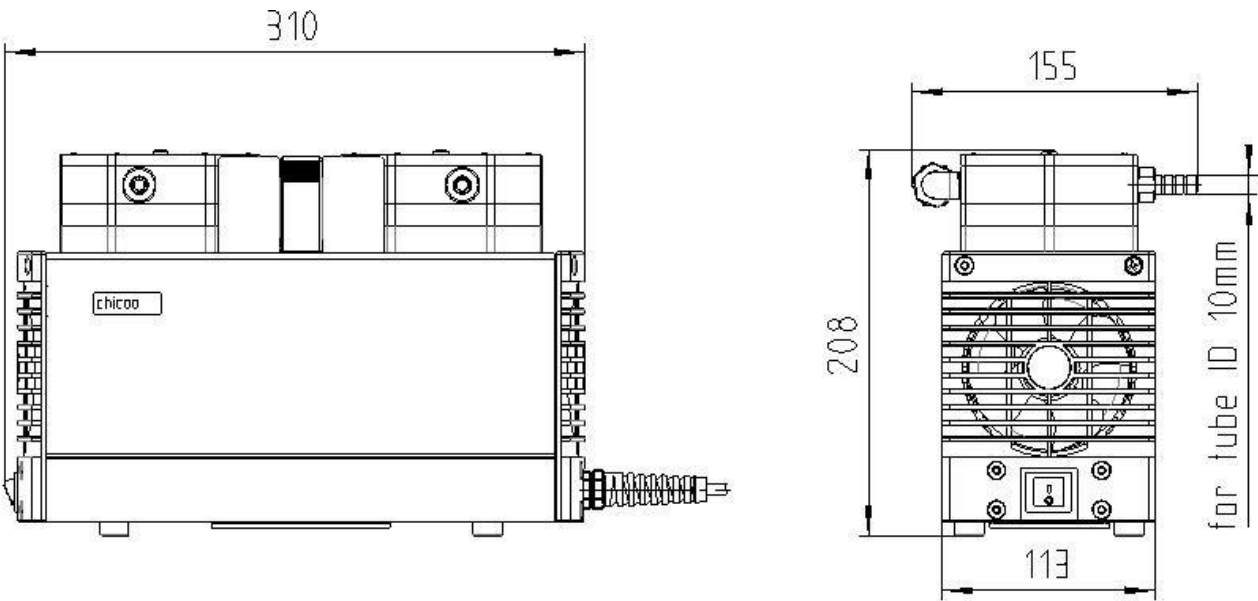
Votalge & frenquecy	220 V 50/60 Hz
Power	130 W
Pump head type	Two-stage
Ultimate vacuum [mbar abs.]	8 mbar
Operation pressure	1 bar (Max)
Flow rate [l/min] at atm. pressure	20 L/min
Connectors for tube (mm)	10mm
Permissible gas and ambient temperature	+5 °C ~ +40 °C
Pump head	PTFE
Diaphragm	PTFE
Valves	FKM or FFPM
Rotate speed	1450 RPM
Humidity	< 80%
Dimension (LxWxH)	315x165x210 mm
Weight	9.4Kg

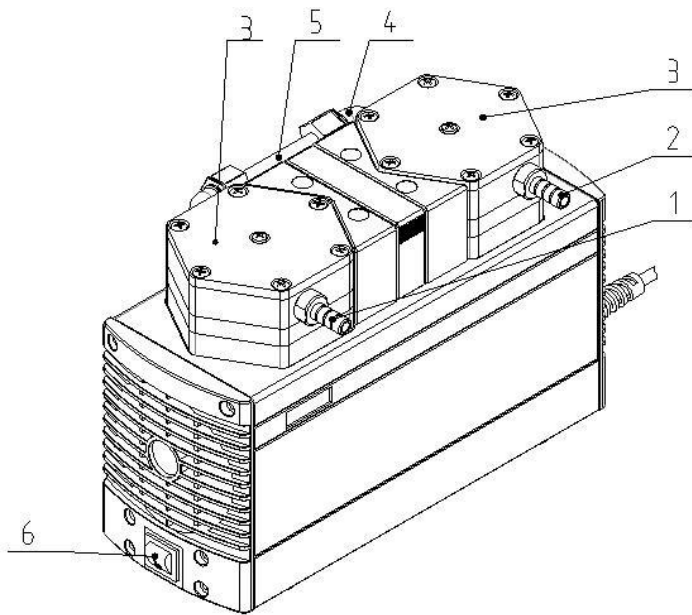
Notice: Unfinished matters and special applications, please contact us.

IV. Naming Rule



V. XDGM-20 Dimension





- II Inlet
- II Outlet
- II Pump head
- II Connection
- II Pneumatic connection
- II Power switch

## 5. Installation

### 1. Checking

- a. Unpack the box carefully.
- b. Taking out the pump and place on the table. Checking the equipment and accessories against the packing list, if found the wrong parts or accessories, incomplete or not normal, please contact the manufacturer.

### 2. Installation

- a. Before installation, pumps and accessories must be in a room temperature environment.
- b. Make sure that the pump is installed in a ventilated environment and that the motor fan is capable of drawing in enough cooling air.
- c. Make sure the voltage on the socket corresponds to the voltage given on the pump nameplate.
- d. Make sure the pump is installed in a clean, well-ventilated, dry environment at temperatures below 40 ° C and prevent rain, splashes, hoses and drops of water.
- e. Make sure the pump inlet and outlet are connected by a high-pressure hose. Note that the hose connected to the pump outlet is lower than the pump outlet all the way.
- f. Please rolling some sealing tape on the thread of needle valve then connect to pump, please refer to the dimension drawing.
- g. Please rolling some sealing tape on the thread of gauge then screw with needle valve, please positioning the gauge refer to your demand.

## 6. Operation

1. Switch on the pump after all the tubes are properly connected to the inlet and outlet.
2. After using, release the vacuum and continue to operate the vacuum pump for at least two minutes to extend the life of the pump.

Notice:

- a. The pumps are not suitable for liquids and transferring dusts.
- b. Do not use the pump as a pressure pump.
- c. Pump outlet is forbidden to block.
- d. Do not use in rooms where equipment is required to be explosion-proof.
- e. Prohibition of handling spontaneous combustion samples.
- f. If the pump does not work when switch on, please switch off immediately, remove the vacuum and switch on again; if the pump is still not working, please contact our distributor or technical department.

## 7. Service and Maintenance

### 1. Maintenance Note:

Corrosion-resistant vacuum pump should be stored in a dry and ventilated room, and the pump inlet and outlet must be sealed with a special glue to prevent foreign matter into the cavity damage to seal parts, and to avoid contact with oil or other flammable substances.

## 2.Troubleshooting



**Must cut off power before checking.**

trouble	cause	Fault remedy
The pump doesn't run	Didn't connect power	Check power source connected property.
	No voltage in the power source	Check room fuse and switch on if necessary.
	Thermal switch has operated following to over-heating.	Disconnect pump from mains and allow pump to cool. Trace cause of over-heating and eliminate it.
Pump running but don't generate the vacuum	Connected tubes jammed	Check the tubes
	External valve is closed or filter is clogged	Check valve and filter
	Condensate has collected in pump head	Please release the vacuum and running 5 mins more.(please detach the condensate source from the pump)
	Diaphragm or valve plates are soiled	Replace or clean diaphragm and valve plates
The system/the pump does not achieve the output specified in the technical data or the data sheet	Tube connect wrong or there are defects	Check the tube connection
	Leaks occur on connections, lines or pump head	Check that tubes sit correctly on hose nozzles. Replace leaky tubes. Eliminate leaks.
	Condensate have collected in pump head.	Please release the vacuum and running 5 mins more.(please detach the condensate source from the pump)
	Diaphragm or valve plates / sealings are worn or soiled	Replace or clean diaphragm and valve plates / sealings











## 8. Symbols and Markings

Please fully understand what the symbols appeared here meanings:



Warning    Death or serious injuries and/or serious damage are possible. Caution    Minor injuries or damage are possible.

Symbols:

	WARNING OR CAUTION		Prohibition
	Order(must be executed)		Do not place in a humid, dusty, greasy or near-heat generating equipment, otherwise it will cause malfunction, fire or electric shock
	Turn off the power when idle for long time or during maintenance. Doing so may cause a fire or electric shock		Prohibit                    disassemble, decompose, repair or modify the product, otherwise it may cause fire or electric shock
	Turn off the power when the power is abnormal. If there is any abnormality, cut off the power immediately. Otherwise, fire or electric shock may occur.		Do not use fluids that can corrode materials and may cause fire, electric shock, or chemical contamination

If you have any technical problem please directly contact our

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