MagVac 20 suction filtration system

Column membrane method negative pressure suction filtration system

Product introduction

The MagVac 20 suction filtration system is a rapid extraction device specially designed for column membrane nucleic acid extraction kits.The lysate and cleaning solution are combined and cleaned through the column by negative pressure, rather than relying on centrifugal force.During suction filtration, the waste liquid generated during the column binding and cleaning is directly sucked and filtered into the waste liquid bottle. There is no need to repeatedly take the tube and discard the waste liquid, so the operation steps are simpler and the time is shorter.The MagVac 20 suction filtration system is compatible with all kinds of adsorption columns on the market.

Product composition

Product number	Quantity
Vaccum pump	1
Buffer bottle	1
Vaccum manifold	1
Column adapter	100
Vacuum stopper	20
Manual	1

Storage conditions

Store at room temperature, dry and clean at room temperature.

Product features

- Suitable for Magen series of column membrane purification kits, which can process up to 20 samples at the same time
- Made of corrosion-resistant high-purity materials, longer service life
- Translucent design, easy to observe the experiment process, and prevent excessive waste liquid from damaging the negative pressure pump system
- Optional Luer switch to solve the problem of inconsistent suction filtration speed for large-volume samples
- The buffer bottle is designed to prevent damage to the instrument caused by waste liquid overload.

Vacuum pump parameters

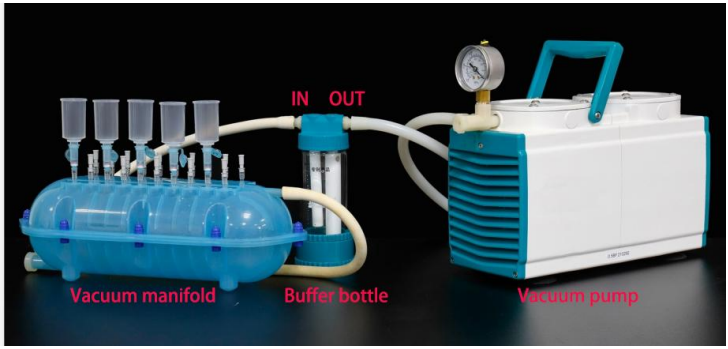
Pumping speed（L/min）	30
Size（LxWxH）(mm)	350x130x215
Ultimate pressure	≥0.095MPa
Inlet diameter（mm）	Φ6
Motor rated power（w）	160
Weight（Kg）	9
Working environment temperature（℃）	7-40
Pump head	double
Noise（DB）	<60
Vacuum	50mbar
Air outlet	Silencer
Voltage	220Vac，50Hz
Maximum working temperature of pump body （℃）	<55
Type	Negative pressure type

Installation and operation steps

1. Open the packing box, take out the buffer bottle, silicone tube, power cord, vacuum pump, suction filter box and other accessories.

2. Take out the short silicone tube, connect one end to the air nozzle marked "OUT" on the blue cap of the buffer bottle, and connect the other end to the negative pressure air nozzle of the vacuum pump.(That is, the long end of the plastic tube in the buffer bottle should be connected to the negative pressure of the vacuum pump. The long tube contains a liquid floating head to prevent the solution from being sucked into the vacuum pump and damaging the equipment.)

3. Take out the long silicone tube and connect one end to the air nozzle marked "IN" on the blue cover of the buffer solution, and the other end to the air nozzle on the top of the suction filter box. After the connection is completed, it is shown in the figure below.

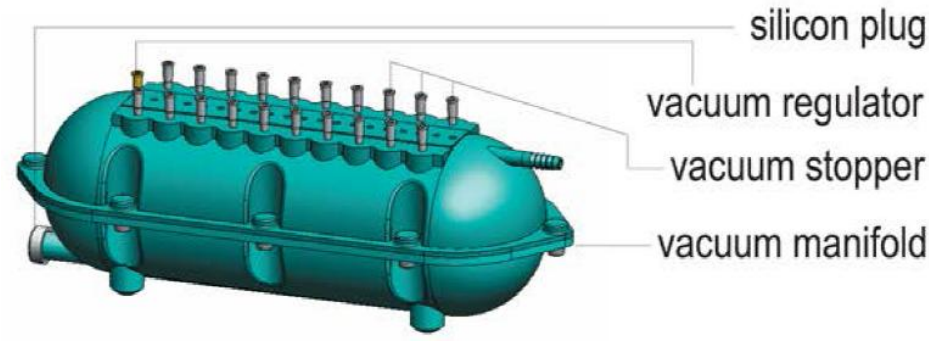


4. When performing nucleic acid extraction, insert the small end of the adapter into the hole of the suction filter box, and then insert the adsorption column, purification column or filter into the large end of the adapter, and plug the holes that are not needed for sealing. Details As shown in the figure below.

Note: When performing large-volume suction filtration, due to the inconsistent filtration speed, it is recommended to directly plug the Luer switch into the suction filter box, and then connect it to the adsorption column or other filters.When the solution oil filtration is completed, close the opening to prevent the filter membrane from drying out due to long suction filtration.For high-sensitivity nucleic acid extraction, when connecting to the column and the Luer switch, add an adapter. Use a new adapter each time to prevent cross-contamination. More adapters can be ordered separately, item number: VAC-100.

5. After the filtration is completed, turn off the power supply of the vacuum pump.

6. After the barometer returns to normal, remove the adsorption column or filter to prevent the waste liquid from splashing and contaminating the sample.



Cleaning and decontamination

The vacuum filter box should be cleaned regularly to maintain the best performance.Perform cleaning procedures after each use to avoid sample contamination.

1. Remove the nucleic acid purification column or other filter, and set aside the relevant silica gel tube.

2. Remove the joints and plugs on the suction filter box.Transfer the suction box to the drain tank.

3. Carefully remove the silica gel plug on the drain hole of the suction filter box to allow the waste liquid to drain.

4. Rinse the inside and outside of the suction filter box and related parts with tap water, and then use pure water to flush the inner pipe and joints, plugs, etc.When cleaning with tap water, you can use a water pipe to connect to the top of the suction filter box, and the other end to the water inlet pipe to allow the waste liquid to drain from the bottom drain.

5. After cleaning, let it dry naturally.

Matters needing attention

The buffer bottle is to prevent the overflowing waste liquid from directly entering the vacuum pump. Once the waste liquid enters the vacuum pump, it will cause damage to the vacuum pump.The unique design of the buffer bottle can prevent waste liquid from entering the vacuum pump.For the sake of safety, it is recommended to discard all the liquid in the buffer bottle when cleaning. Keeping the buffer liquid in a liquid-free state is beneficial to prolong the service life of the vacuum pump.