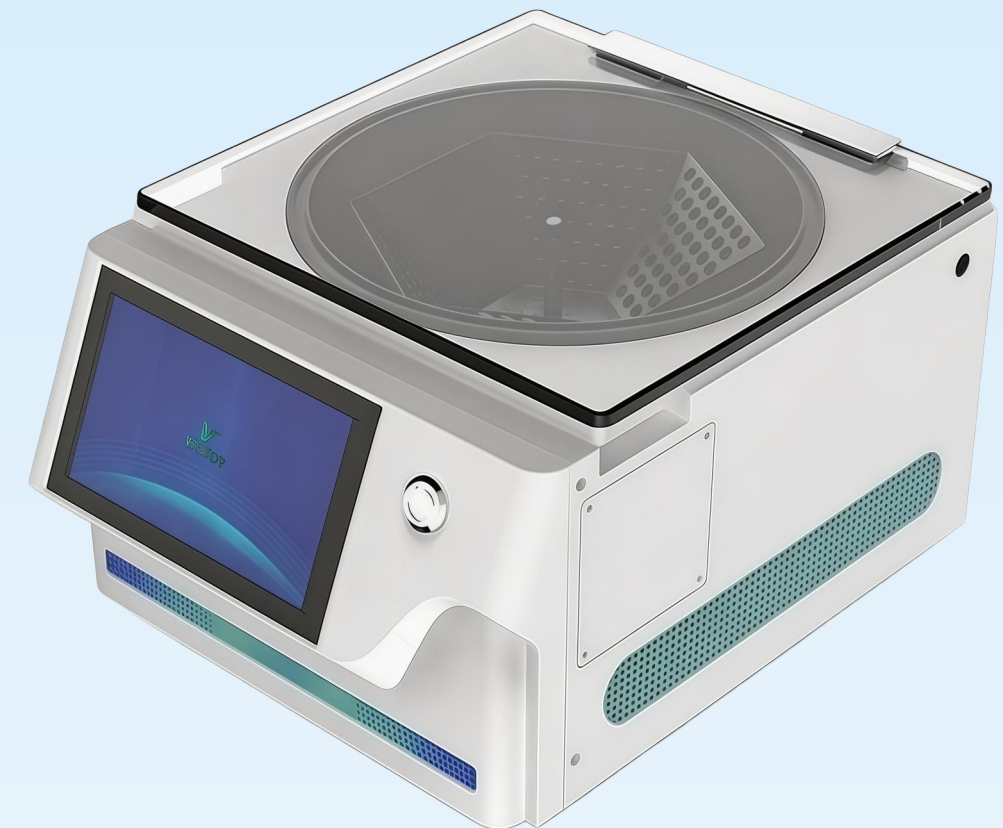




Trusted by Labs Worldwide

Vector Centrifugal Vacuum Concentrator

Contact Us

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Talent team

200+ employs

Currently employs 200+staff members, comprising 1 PhD holder,5 postgraduate, 30 undergraduates, and over 100additional production personnel.



Facility

3,000 square metres

Vector Science & Technology possesses a production area of 3,000 square metres, alongside multiple research and development centres nationwide. It maintains a highly trained and experienced R&D and production team, complemented by a professional pre-sales and after-sales service team.



R&D center

More than 3 R&D centers

Established in collaboration with Xi'an Jiaotong University, our R&D center located in Xi'an City. Vector also has R&D centers in Suzhou and Shanghai. Possesses an independent technical and software development team alongside a comprehensive quality management system.

About Us

Company Profile

Founded in 2011, Vector Science&Technology is a high-tech manufacturer providing complete solutions for the power monitoring and biotechnology industries. Committed to our value "Make power monitoring&life science easier", we provide sustainable and innovative overall process solutions for life science industry and biotechnology down stream field.

Business Scope

- We provide sustainable and innovative overall process solutions for**life science industry and biotechnology down stream field**.
Focusing on supplying equipment and consumables for biological instruments and consumables for recombinant protein drugs, vaccine preparations, antibody drugs, cell therapy, and genetic engineering etc.
- Vecotr is also an expert in comprehensive solutions of smart grid online monitoring , intelligent diagnosis, operation and maintenance of power equipment.
Vector has mature R&D and production experience in the field of power monitoring including various multifunctional PD detector, portable PD detector, GIS and transformer PD online monitoring system, cable fault early warning and location system, cable online monitoring system, etc.
We have our own R&D centre and can accept OEM orders.

➤ Product Introduction

A centrifugal vacuum concentrator is a highly efficient equipment for sample preparation. Combining vacuum centrifugation technology with the principle of low-temperature concentration, this device enables the rapid evaporation of solvents under gentle conditions, thereby preserving sample activity; Optimal sample processing to ensure fast, efficient and gentle vacuum concentration of DNA/RNA, nucleotides, proteins and other liquid or wet samples.

Main components of the centrifugal vacuum concentrator:

1. **Centrifuge chamber:** sample loading, control, centrifugation.
2. **Cold trap:** solvent collection.
3. **Vacuum pump/diaphragm pump:** provides vacuum



➤ Applications

- | | |
|---|--|
| ◆DNA/RNA research | ◆Environmental monitoring |
| ◆SPE (Solid-Phase Extraction) | ◆Life sciences |
| ◆General laboratory concentration, etc. | ◆Molecular biology |
| ◆Residue analysis | ◆Pharmaceutical analysis |
| ◆Forensic science | ◆HPLC |
| ◆ Biochemistry | ◆Synthesis and separation of organic compounds |
| ◆ Bioanalysis | ◆Toxicological identification |
| ◆ Academic Research | ◆Immunoassay screening |
| | ◆Food safety |



VEC-CVC-A
Centrifugal Vacuum Concentrator with Button
Operation

VEC-CVC-A is a basic type of centrifugal concentrator. It is operated by pressing buttons. It is an efficient and safe device suitable for various scientific research fields. It features one-click operation, adjustable temperature, and multiple rotor options, enabling high-throughput sample processing, reducing sample loss, and improving experimental efficiency.

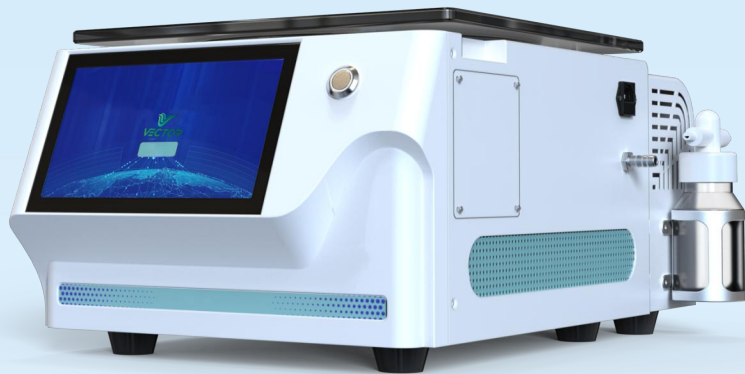


VEC-CVC-AL
Centrifugal Vacuum Concentrator with Touch
Screen

The VEC-CVC-AL is a basic touchscreen model featuring a 7-inch touchscreen for more convenient operation; it can store 48 programmes. It also allows for gradient operation to improve concentration efficiency.

Model	VEC-CVC-A
Operation	Botton press
Chamber Temperature	Room temperature: -100℃
Limit Vacuum Value	≤0.3mbar
Vacuum Value Display	Mechanical shock-proof vacuum gauge
Time Setting	0-99h59min
Cold Trap Temperature	-50℃, -65℃, -70℃, -110℃ selectable
Program	9 groups (no gradient)
Rotor	1.5mL*132、2mL*132、5mL*72、；50mL*8+10mL*8、 (10mL-15mL)*28、100mL*8、250mL*4；Double-layer rotor：2mL*90*2； Sample bottle: 4mL*60、8mL*32
Speed	100-2000rpm
Maximum Centrifugal Force	550xg
Centrifugal Imaging Function	Yes
Power	2000W
Power Supply	AC220V 50/60Hz 10A
Noise	65dB
Dimensions	600*360*350mm
Weight	30KG

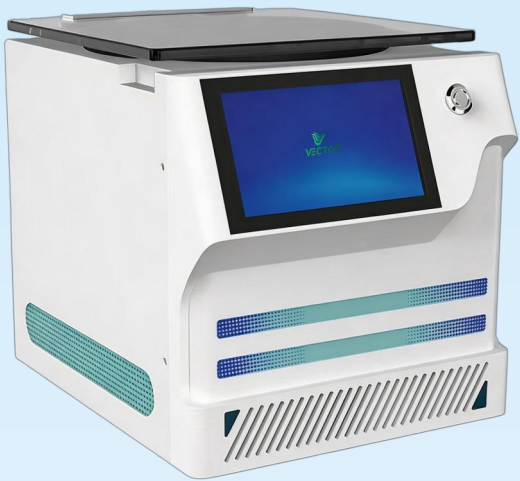
Model	VEC-CVC-AL
Operation	Touch screen
Chamber Temperature	Room temperature: -100℃
Limit Vacuum Value	≤0.3mbar
Vacuum Value Display	Digital screen display
Time Setting	0-9999h59min
Cold Trap Temperature	-50℃, -65℃, -70℃, -110℃ selectable
Program	48 groups (8 gradients)
Rotor	1.5mL*132、2mL*132、5mL*72、；50mL*8+10mL*8、 (10mL-15mL)*28、100mL*8、250mL*4；Double-layer rotor： 2mL*90*2； Sample bottle: 4mL*60、8mL*32
Speed	100-2000rpm
Maximum Centrifugal Force	550xg
Centrifugal Imaging Function	Yes
Power	2000W
Power Supply	AC220V 50/60Hz 10A
Noise	65dB
Dimensions	600*400*360mm
Weight	33KG



VEC-CVC-D
Centrifugal Vacuum Concentrator with Intergrated
Diaphragm Pump

It features a 10-inch touch screen, an internal diaphragm pump, which saves laboratory space. No need to connect a cold trap, operation very convenient. It can store 64 programs; with gradient operation to improve the concentration efficiency.

Model	VEC-CVC-D
Operation	Touch screen
Rotor	1.5/2mL*132、1.5/2mL*240、5mL*72、(10mL-15mL)*28、50mL*8+10mL*8、100mL*8 250mL*4;Double-layer rotor:2mL*90*2;Sample bottle: 4mL*60、8mL*32,
Chamber Temperature	Room temperature +5°C to +100°C (optional infrared heating)
Limit Vacuum Value	≤12mbar(Optional vacuum control range: 800 - 1200 Pa)
Time Setting	0~9999h59min
Cold Trap Temperature	/
Vacuum Value Display	Digital screen display
Maximum Centrifugal Force	550xg
Centrifugal Imaging Function	Yes
Program	64 groups (8 gradients)
Speed	100~2000rpm
Power	AC220V 50/60Hz
Noise	65dB
Power Supply	1500w
Weight	40KG
Dimensions	640*400*300mm



VEC-CVC-BN
Centrifugal Vacuum Concentrator Resistant to Acid and Alkali

It can resist acid and alkali corrosion while also being able to be adjusted to a low temperature of -10°C for low-temperature concentration, ensuring the activity of the samples. It is suitable for the concentration of samples such as nucleic acids, proteins, intracellular active substances, etc. that contain corrosive reagents.

Model	VEC-CVC-BN
Operation	Touch screen
Rotor	1.5/2mL*132、1.5/2mL*240、5mL*72、(10mL-15mL)*28、50mL*8+10mL*8、100mL*8 250mL*4; Double-layer rotor:2mL*90*2; Saple bottle: 4mL*60、8mL*32;
Chamber Temperature	Room temperature,-10°C~+100°C(Optional infrared heating)
Limit vacuum value	≤0.3mbar(Optional vacuum control range: 10 - 1200 Pa)
Time Setting	0~9999h59min
Cold Trap Temperature	-50°C、-60°C、-65°C、-70°C、-85°C、-105°C、-110°C
Vacuum Value Display	Digital screen display
Maximum Centrifugal Force	550xg
Centrifugal Imaging Function	Yes
Program	68 groups (8 gradients)
Speed	100~2000rpm
Power Supply	AC220V 50/60Hz
Noise	65dB
Power	2500w
Weight	35KG
Dimensions	400*510*457mm



VEC-CVC-F
Integrated all-in-one vacuum centrifugal concentrator

The cold trap and diaphragm pump of the all-in-one vertical model (three-in-one / two-in-one) vacuum centrifugal concentrator can be integrated into the main unit, reducing pipeline connections. This not only improves the concentration efficiency but also saves laboratory space.

Model	VCE-CVC-F
Operation	Touch screen
Chamber Temperature	Room temperature,-100°C
Limit Vacuum Value	≤0.3mbar
Vacuum Value Display	Digital screen display
Time Setting	0-9999h59min
Cold Trap Temperature	-50°C(integrated)
Program	48 groups (8 gradients)
Rotor	1.5/2mL*132、1.5/2mL*240、5mL*72、(10mL-15mL)*28、50mL*8+10mL*8、100mL*8 250mL*4;Double-layer rotor:2mL*90*2;Sample bottle: 4mL*60、8mL*32,
Speed	100-2000rpm
Maximum Centrifugal Force	550xg
Centrifugal Imaging Function	Yes
Power	2000W
Power Supply	AC220V 50/60Hz 10A
Noise	65dB
Dimensions	520*450*1100mm
Weight	100KG



VEC-CVC-Auto
Centrifugal Vacuum Concentrator
Fully automated

The fully automated vacuum centrifugal concentrator uses infrared-assisted evaporation to enhance the concentration efficiency. Meanwhile, the stainless steel chamber is corrosion-resistant. It can be remotely controlled via WIFI for the robotic arm to perform automated operations, achieving fully automatic operation.

Model	VCE-CVC-Auto
Operation	Touch screen
Rotor	Customization
Chamber Temperature	Room temperature +5°C to +100°C (optional infrared heating)
Limit Vacuum Value	≤0.3mbar (Optional 10~1200Pa)
Time Setting	0~9999h59min
Cold Trap Temperature	-50°C、-60°C、-65°C、-70°C、-85°C、-105°C、-110°C Optional
Vacuum Value Display	Digital screen display
Maximum Centrifugal Force	550xg
Centrifugal Imaging Function	Yes
Infrared (IR)	Yes(two groups)
Program	48 groups (8 gradients)
Speed	100~2000rpm
Power Supply	AC220V 50/60Hz
Noise	65dB
Power	3000w
Weight	60KG
Dimensions	700*600*580mm



Optional Accessories

Optional vacuum pump

The vacuum pump is the core component of the vacuum centrifugal concentrator. By reducing the pressure, it changes the boiling point of the solvent, allowing the solvent to evaporate. At the same time, the samples remain stable due to their low-temperature concentrated state. Choosing an appropriate vacuum pump not only significantly enhances the experimental operation experience but also ensures the accuracy of the experimental results and the long-term stability of the equipment.



VEC-116



VEC-121

1. Vacuum pump pumping speed: ≥ 8 m³/h
2. Ultimate vacuum: ≤ 0.001 mbar
3. Power: 0.55 kW
4. Oil capacity: 500 ml
5. Low noise, low vibration

1. Vacuum pump pumping speed: ≥ 10.8 m³/h
2. Ultimate vacuum: ≤ 0.0004 mbar
3. Low noise, low vibration



VEC-117



VEC-126

1. Vacuum pump pumping speed: ≥ 16 m³/h.
2. Ultimate vacuum: ≤ 0.0004 mbar.
3. Protection rating: IP44.
4. Oil capacity: 0.9–1.5 L.
5. Motor speed (50/60 Hz): 1440/1720 rpm.
6. Low noise, low vibration; noise level ≤ 58 dB.

1. Vacuum pump pumping speed: ≥ 8 m³/h, with anti-oil-back design.
2. Ultimate vacuum (total pressure): ≤ 0.005 mbar.
3. Noise level: ≤ 52 dB.
4. Wide voltage range: 110 V–230 V.
5. Pump features built-in gas ballast.
6. Brushless DC motor, corrosion-resistant pump body, and sealed structure to prevent oil leakage.

Optional diaphragm pump

The efficiency of the diaphragm pump is not as high as that of the oil pump, but it can effectively resist corrosion, does not require adding oil, and there is no need for protection. It is very convenient to use.



VEC-119



VEC-123

1. Vacuum pump pumping speed: ≥ 4 m³/h
2. Ultimate vacuum: ≤ 2 mbar
3. Low noise, low vibration
4. Resistant to corrosion by organic solvents, highly corrosion-resistant, non-polluting and maintenance-free

1. Vacuum pump pumping speed: ≥ 1.8 m³/h
2. Ultimate vacuum: ≤ 15 mbar
3. Low noise, low vibration
4. Resistant to corrosion by organic solvents, highly corrosion-resistant, pollution-free and maintenance-free

► Optional diaphragm pump



VEC-124



VEC-125

1. Vacuum pump pumping speed: ≥ 2.1 m³/h
2. Ultimate vacuum: ≤ 8 mbar
3. Motor power: 200 W
4. Low noise, low vibration, adjustable speed
5. Resistant to corrosion from organic solvents, highly corrosion-resistant

1. Vacuum pump pumping speed: ≥ 2.1 m³/h
2. Ultimate vacuum: ≤ 8 mbar
3. Motor power: 200 W
4. Low noise, low vibration
5. Resistant to corrosion by organic solvents, high corrosion resistance



VEC-118



VEC-122

1. Vacuum pump pumping speed: ≥ 3.3 m³/h
2. Ultimate vacuum: ≤ 2 mbar
3. Low noise and low vibration
4. Resistant to corrosion from organic solvents; highly corrosion-resistant

1. Vacuum pump pumping speed: ≥ 6 m³/h
2. Ultimate vacuum: ≤ 0.03 mbar
3. Low noise and low vibration
4. Oil-free

► Optional cold trap

A cold trap is an advanced and highly efficient solvent recovery device. It can cool and condense the vapor of the solvent, thereby achieving solvent recovery. By reducing the emission of steam, it effectively enhances the efficiency of vacuum concentration.



VEC-CT-A

-50°C
Power: 750W
Cold trap capacity: 2L
Heating coil type: Internal coil
Cavity material: High-quality 304 stainless steel



VEC-CT-B

-65°C
Power: 750W
Cold trap capacity: 4L
Coil configuration: External coil
Chamber material: High-quality 304 stainless steel



VEC-CT-C

-70°C
Power: 800 W
Collection flask capacity: 500 mL
Coil configuration: External coil
Chamber material: High-quality 304 stainless steel

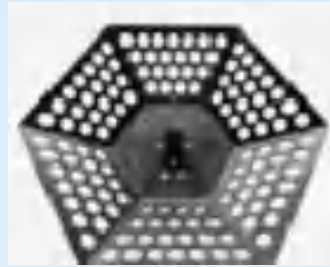


VEC-CT-G

-105°C
Power: 2000W
Cold trap capacity: ≥5000mL
Coil configuration: Internal coil
Chamber material: High-quality 304 stainless steel

► Assembly option

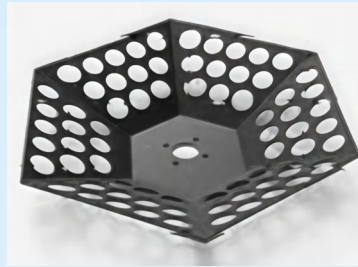
Regular type



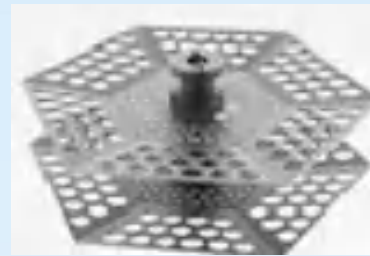
132x2 mL/132x1.5 mL



240x1.5/2 mL



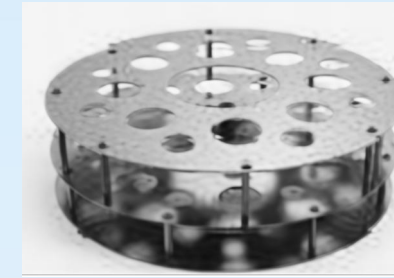
72x5mL



90x2 mL doble layer



28x(10 mL~15 mL)



8x50 mL+8x10 mL



8x50 mL+8x10 mL



8x50 mL+8x10 mL



4x250 mL



8x100 mL



212x2 mL



60x5/10/15mL



22x50 mL



60x4 mL Sampling
bottle



32x8 mL Sampling
bottle



Microwell plate

Mini type



68x4 mL



42x5 mL+44x2 mL



20x(10~15)mL



8x50 mL



90x1.5/2mL Double layer

High throughput type



380x1.5 mL Sampling
bottle



294x1.5/2mL



100x5/10/15mL



38x50 mL



14x100 mL



12x250 mL