

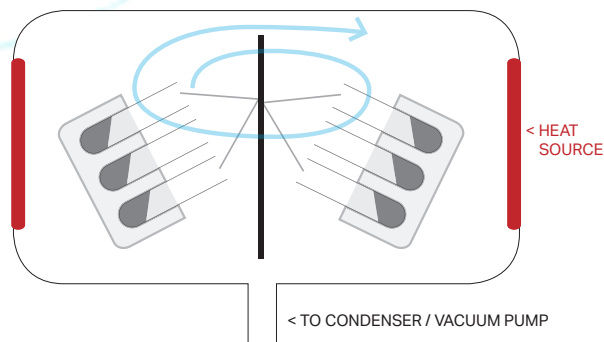


Centrifugal Vacuum Concentrator

InnovaCVC

InnovaCVC is a centrifugal vacuum concentrator as general-purpose laboratory benchtop equipment.

InnovaCVC offers rapid, environmental friendly and efficient vacuum concentration or drying of samples like DNA/RNA, nucleotides, pro-teins and other liquid or wet samples with ease and reproducibility that maintain sample integrity. **InnovaCVC** is ideal for routine work with your samples.





Features

- Modular configurations of centrifugal part, cold trapping, and vacuum pump for versatile applications
- Available for volatile chemical solvents by accommodating with water pump, diaphragm pump or oil pump
- Accommodate a wide range of sample containers
: 0.5, 2.0, 15, 50 mL tubes and microplates
- Automatic control and digital reading of TIME, TEMP and VAC
- Efficient concentration by equipped with an ice-cold trapping or a cooling trap, HyperCOOL (-55°C/-110°C)

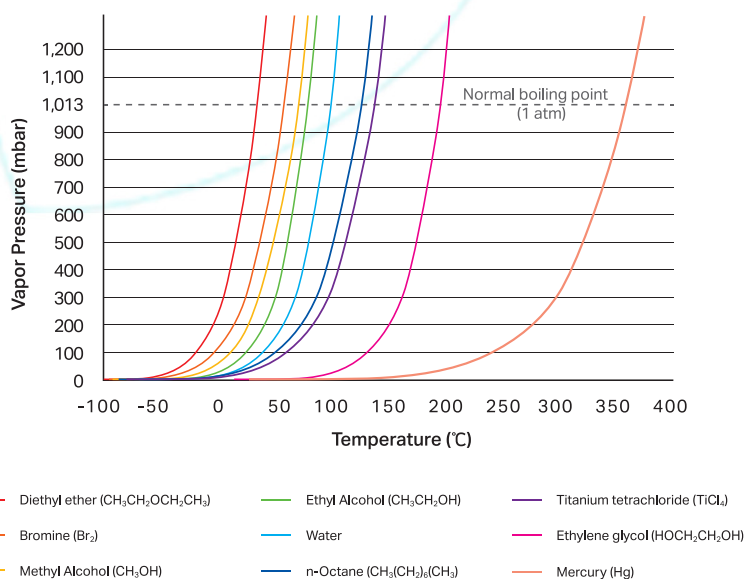
Run Time : 1 min to 9:59 hrs , Increment 1 min-infinite

Applications

- Nucleic acids (DNA/RNA) concentration
- HPLC, PCR, gel extraction, isolation, purification and concentration from solid phase extraction to solvent removal
- Combinatorial chemistry

Centrifugal Vacuum Concentration

Centrifugal vacuum concentrator evaporates the solvents for sample concentration or drying. Generally, liquid phase is evaporated to the gaseous phase at high temperature of above boiling point and atmospheric pressure. However, since it is not suitable for temperature sensitive samples, we need more comfortable way for evaporation. As the vapor pressure diagram [Figure 1], the boiling point can be decreased by lower pressure. The low pressure condition is possible by vacuum pump. InnovaCVC is designed heating up to 80 degrees and working with vacuum pump. It can lead that the solvent has low boiling point by vacuum and the evaporation can be promoted by applying energy like heat. The samples are not under thermal stress and the experiment can proceed quickly. It is possible to collect without any pumping out and foaming due to the centrifugation and safe to collect the solvent vapor in drip catcher or cold trap.



Vapor Pressure Lowering

$$P = XP^0$$

P = Vapor pressure of the solution

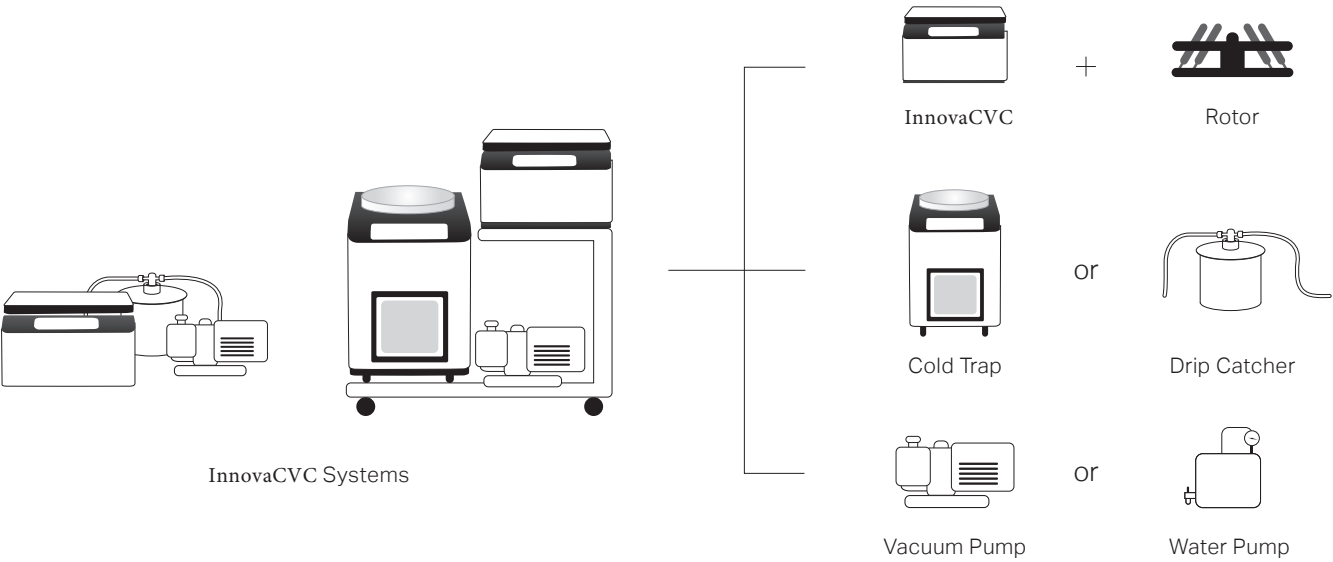
X = Mole fraction of the solvent

P⁰ = Vapor pressure of the pure solvent

Figure 2-1. Vapor Pressure Diagram



System Diagram



Technical Specifications

		InnovaCVC-LITE	InnovaCVC-MAX
Max. RPM		2,000	
Max. Capacity	Fixed Angle	120 x 1.5/2.0 mL microtubes or 48 x 1.5/2.0 mL + 76 x 0.5 mL microtubes 32 x 10 mL, 6 x 50 mL conical	200 x 1.5/2.0 mL microtubes 24 x 30 mL, 12 x 50 mL conical
	Swing-out	2 loadings of MTP	4 loadings of MTP or DWP
Auto Start / Stop of Vacuum		Yes	
Chamber Heating Temp. Range		R.T ~ 80°C	
Vacuum Pressure (mbar)		1 ~ 1,013	
Operating Time		< 23 hr 59 min or continuous, Default value: 0 h 0 m (continuous)	
Weight (kg)		22.5 (without rotor)	37 (without rotor)
Power Requirement (Centrifuge, VA)		350	700
Power supply (V/Hz)		230 V, 50 Hz (AC 220-230 V, 50/60 Hz; 110 V optional)	
Centrifuge Dimension (w x d x h, mm)		375 x 445 x 252	475 x 560 x 350
Cat. No.		Hyper-VC2124	Hyper-VC2200



Examples of System Configurations



	InnovaCVC-LITE a	InnovaCVC-LITE b
Condenser Temperature	LITE Type / User's Choice	LITE Type / User's Choice
Drying Axillaries	0°C Ice Cooling / Chemical Trap Bottle	0°C Ice Cooling / Chemical Trap Bottle
Pump	Water Pump	Diaphram Pump



	InnovaCVC-MAX a	InnovaCVC-MAX b1	InnovaCVC-MAX b2
Centrifuge	MAX Type / User's Choice	MAX Type / User's Choice	MAX Type / User's Choice
Cooling Trap	0°C Ice Cooling (Drip Catcher)	-55°C	-110°C
Pump	Diaphram Pump	Rotary Vane Pump	Rotary Vane Pump
Others		A Type Table	B Type Table

* OTHER PACKAGES AVAILABLE



Rotors for InnovaCVC-LITE

INV-m0.5/2.0-124

48 x 1.5/2.0 mL
+ 76 x 0.5 mL
+96 x 1.5 mL/ 2 mL



INV-m2.0-120

120 x 1.5/2.0 mL



INV-50-6

6 ea x HLV-50
6 x 50 mL (conical)



INV-15-12

Inc 12ea x HLV-15

12 x 15 mL



INV-mw-2

2 loadings of MTP



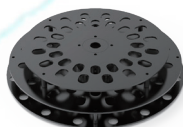
INV-10-18

18 x 10 mL vial tube



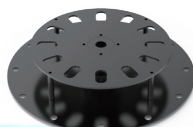
INV-10-32

32 x 10 mL



INV-c15-12

12 x 15 mL conical



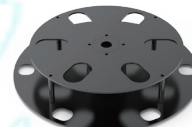
INV-36-12

36x 1.5mL screw cap glass
vial tube



INV-c50-6

6 x 50 mL conical



Rotors for InnovaCVC-MAX

INV-m2.0-200

200 x 1.5/2.0 mL



INV-15-18

8ea x HLV-15
48 x 15 mL



INV-50-12

8ea x HLV-50
12 x 50 mL (conical)



INV-mw-4

4 loadings of MTP/DWP



INV-5-192

192 x 5 mL



INV-8-60

60 x 8 mL vial tube



INV-c15-24

24 x 15 mL conical



INV-30-24

24 x 30 mL vial tube



INV-c50-12

12 x 50 mL conical

