HANIL SCIENTIFIC CONCENTRATORS

For your sample concentration

hanil

Centrifugal Vacuum Concentrators

HyperVAC™

HyperVAC is a centrifugal vacuum concentrator as general-purpose laboratory benchtop equipment.
HyperVAC offers rapid, environmental friendly and efficient vacuum concentration or drying of samples like DNA/RNA, nucleotides, proteins and other liquid or wet samples with ease and reproducibility that maintain sample integrity. HyperVAC 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 accomodating with water pump, diaphram 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℃/-110℃)

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

The solvent removal is an essential process for the wide range of applications in genomics, proteomics, biochemistry, pharmaceutical study and analytical chemistry. The energy, as heat is applied during solvent removal process, so that the liquid is evaporated to gas. The boiling point of solvent can be decreased by applying vacuum pressure, which enables liquid vaporization at lower temperature than it's boiling temperature. Also decreased boiling points and centrifugal force give benefit to minimize boiling and bumping of solvent, prevent cross contamination and sample loss. HyperVac generates heat up to 80℃, accommodating with vacuum pump and cold traps provides enhanced evaporation of solvent and improved sample purity.

Vapor Pressure Lowering

$P=XP^o$

P = Vapor pressure of the solution

X = Mole fraction of the solvent

P^o= Vapor pressure of the pure solvent

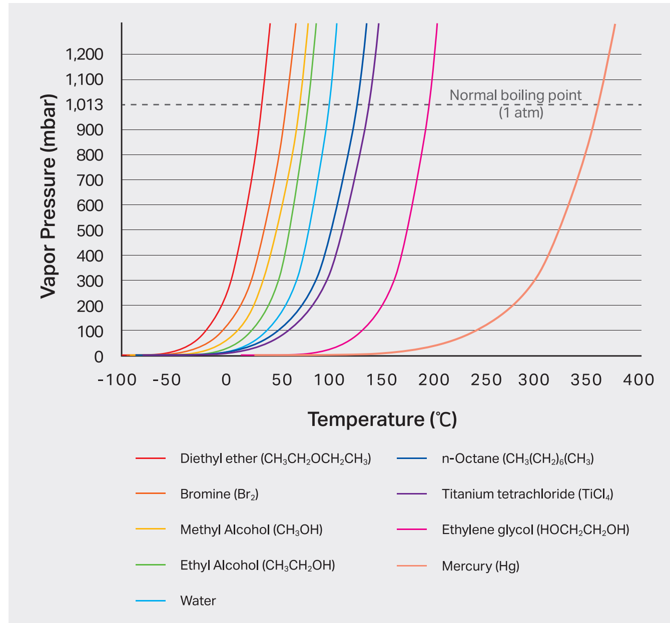
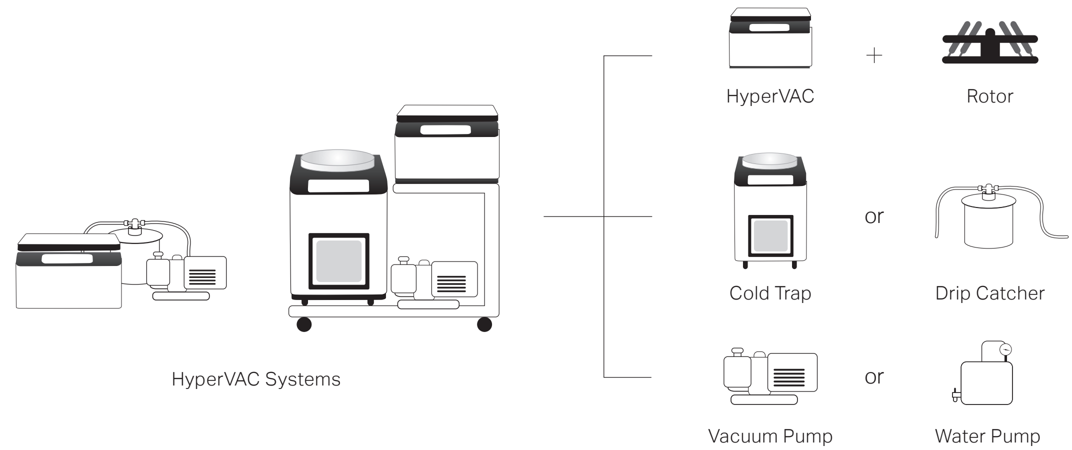


Figure 1. Vapor Pressure Diagram

Technical Specifications

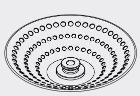
		HyperVAC-LITE	HyperVAC-MAX
Max. RPM		2,000	
Max. Capacity	**Fixed Angle**	120 x 1.5/2.0 mL microtubes or 48 x 1.5/2.0 mL + 76 x 0.5 mL microtubes	200 x 1.5/2.0 mL microtubes 24 x 30 mL
	Swing-out	2 loadings of MTP	4 loadings of MTP or DWP
Auto Start / Stop of Vacuum		Yes	
Chamber Heating Temp. Range		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

System Diagram of HyperVAC

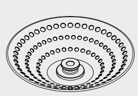


Rotors for HyperVAC-LITE

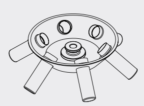
HRV-m0.5/2.0-124
48 x 1.5/2.0 mL
+ 76 x 0.5 mL



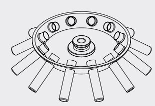
HRV-m2.0-120
120 x 1.5/2.0 mL



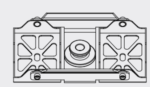
HRV-50-6
Incl. 6 ea x HLV-50
6 x 50 mL (conical)



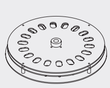
HRV-15-12
Incl. 12 ea x HLV-15
12 x 15 mL



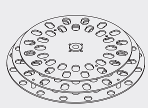
HRV-mw-2
2 loadings of MTP



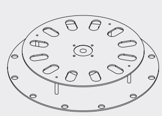
HRV-10-18
18 x 10 mL vial tube



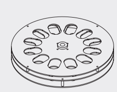
HRV-10-32
32 x 10 mL



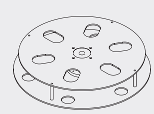
HRV-15c-12
12 x 15 mL conical



HRV-20-12
12 x 20 mL vial tube

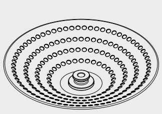


HRV-50c-6
6 x 50 mL conical

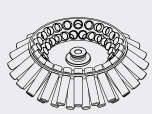


Rotors for HyperVAC-MAX

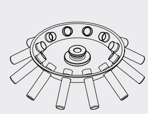
HRV-m2.0-200
200 x 1.5/2.0 mL



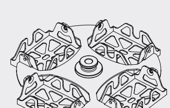
HRV-15-48
Incl. 48 ea x HLV-15
48 x 15 mL



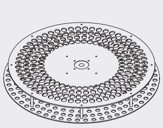
HRV-50-12
Incl. 12 ea x HLV-50
12 x 50 mL (conical)



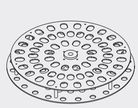
HRV-mw-4
4 loadings of MTP/DWP



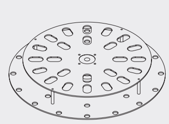
HRV-5-192
192 x 5 mL



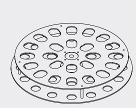
HRV-8-60
60 x 8 mL vial tube



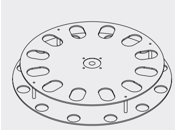
HRV-15c-24
24 x 15 mL conical



HRV-30-24
24 x 30 mL vial tube



HRV-50c-12
12 x 50 mL conical



T. +82-2-3472-0727 | sales@ihanil.com | www.ihanil.com since 1958

HANIL SCIENTIFIC INC.

16 Arayukro, Gimpo 10136, Rep. of KOREA
T. +82-2-3472-0727 | F. +82-31-985-9158
sales@ihanil.com | techsupport@ihanil.com
www.ihanil.com

Scientific Technologies

Unit F8, Maynooth Business Campus,
Maynooth,
Co. Kildare,
Ireland.

Tel: +353 1 9602050
eMail: sales@elementec.ie