

Easy concentration of small volume samples

Smart Evaporator MADE IN JAPAN



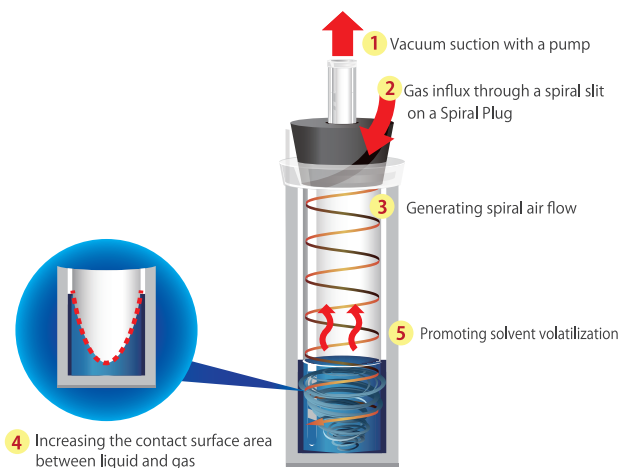
Short cut for tedious concentration procedures



<Spiral Plug mark>

This trademark indicates the application of our proprietary vacuum-style vortex concentration technology.

Vacuum Vortex Concentration



Vortex Vortex Concentration increases the contact surface area between liquid and gas, which promotes the speed of concentration. In addition, this enables to concentrate samples without heating at high temperature.
(※Liquid temperature should be higher than room temperature to prevent condensation within a container.)

Reference (Concentration speed)

Solvent / Amount	Flow rate	(20 ml vial)	
		40°C	70°C
Hexane / 5 ml	15L/min	3 min	3 min
Acetone / 5 ml	15L/min	4 min	3 min
Ethyl acetate / 5 ml	15L/min	6 min	5 min
Acetonitrile / 5 ml	15L/min	9 min	8 min
Methanol / 5 ml	15L/min	10 min	6 min
Ethanol / 5 ml	15L/min	10 min	6 min
*Deionized Water / 5 ml	29~30L/min	49 min	28 min
*DMF / 5 ml	20~30L/min	43 min	24 min
*DMSO / 5 ml	23~30L/min	195 min	69 min
*NMP / 5 ml	25~30L/min	N/A	71 min

High-boiling-point solvent

* Gas purge data

Useful in many different research fields

- Organic Chemistry
- Materials Science
- Polymer Chemistry
- Environmental Analysis
- Bio Chemistry
- etc

Used For

- Compounds after organic synthesis
- Solvent removal after NMR
- Samples after fractionation and purification
- Samples after solid extraction

Reasons why Smart Evaporator is selected



1 Bumping-free

Plugs with a spiral slit can prevent bumping by eliminating high vacuum state and generating spiral air flow to stir whole samples.



2 DMSO & DMF concentration

The unique concentration principle, spiral air flow, enables us to efficiently concentrate high-boiling temperature solvents, such as DMSO, DMF and water, without heating. (Keep the temperature of samples higher than that of room temperature to avoid condensation.)



Reference (Concentration speed)

Solvent / Amount	Flow rate	40°C	70°C
Deionized Water /5mL (20 ml vial)	29~30L/min	49min	28min
DMF/5mL (20 ml vial)	20~30L/min	43min	24min
DMSO/5mL (20 ml vial)	23~30L/min	195min	69min
NMP/5mL (20 ml vial)	25~30L/min	N/A	71min



3 Efficient sample recovery

No requirement of sample transfers eliminates the risk of sample loss and saves time.



4 Compatible with various containers

Tapered Spiral Plugs are compatible with more than 500 different containers such as vials and micro tubes etc.



5ml vial, microtube, micro test tube, 1.5ml/2ml vial, Sample vial for HPLC, falcon tube / conical tube etc...



5 Easy handling

It only takes a few minutes to start concentration by turning a control valve after setting up samples.



Smart Evaporator **K4**™

**One position is not enough,
but four-position just works fine!**

1. Bumping-free
2. DMSO&DMF concentration
3. Efficient sample recovery
4. Easy handling
5. Compatible with various containers



Product name	Smart Evaporator K4	
Heater shape & size	Rectangle shaped, W226mmxD55mmxH58mm	
Heater temperature range	Room temperature to 100°C	
Gas purge	×	
Inner mouth diameter of compatible containers	Φ4~32mm	*containers with inner mouth diameter of 24~32mm can also be used for some cases. Please ask your distributor for details.
Color	1 colors (Sun)	
Size(mm)	W340x D156x H414.2 (except protruded parts)	
Weight	4.8kg	
Operating environment	Temperature : 10°C~to 40°C	Humidity : 20% ~ 80%

Consumables

Spiral Plug	Catalog code	SP-P1 (for containers with Inner diameter of 4~7mm)
		SP-P2 (for containers with Inner diameter of 7~11mm)
		SP-P3 (for containers with Inner diameter of 11~17mm)
		SP-P4 (for containers with Inner diameter of 15~24mm)
		SP-P5 (for containers with Inner diameter of 24~32mm)
Guide Plate	Catalog code	CEK4-GP-()-4 *Please indicate the size of the hall in parentheses.

■Distributor

■Manufacturer

BC BioChromato

BioChromato, Inc.

1-12-19 Honcho, Fujisawa, Kanagawa-ken 251-0053 JAPAN

TEL:+81-466-23-8382

Fax:+81-466-23-8279

<https://www.bicr.biz/>

E-mail:info@bicr.co.jp