

Easy concentration of small volume samples

Smart Evaporator MADE IN JAPAN



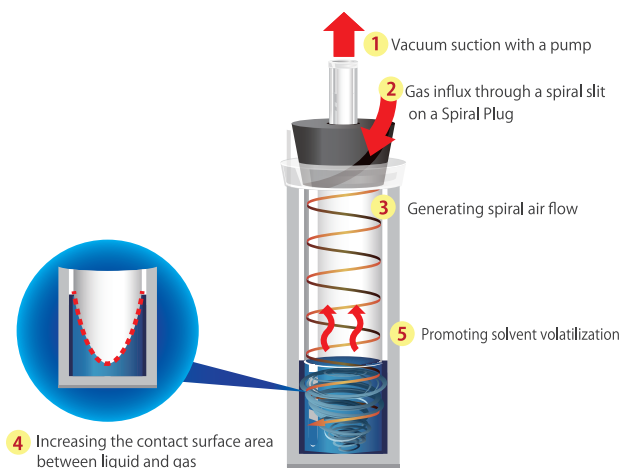
Short cut for tedious concentration procedures



<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
- Environmental Analysis
- Materials Science
- Bio Chemistry
- Polymer 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
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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 **K1**™

The most compact and lightweight model

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



Body

Product name	Smart Evaporator K1
Heater shape & size	Circle shaped, ϕ 60mm
Heater temperature range	Room temperature ~ 100°C
Gas purge	×
Inner mouth diameter of compatible containers	ϕ 4~32mm <small>*containers with inner mouth diameter of 24~32mm can also be used for some cases. Please ask your distributor for details.</small>
Color	1 colors (Sun)
Size(mm)	W205x D150x H361
Weight	2.7kg
Operating environment	Temperature : 10°C~to 40°C Humidity : 20% ~ 80%

Consumables

Spiral Plug	Catalog code
	CEK1-CP-P1 (for containers with Inner diameter of 4~7mm)
	CEK1-CP-P2 (for containers with Inner diameter of 7~11mm)
	CEK1-CP-P3 (for containers with Inner diameter of 11~17mm)
	CEK1-CP-P4 (for containers with Inner diameter of 15~24mm)
	CEK1-CP-P5 (for containers with Inner diameter of 24~32mm)

■Distributor

■Manufacturer

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