



## New hydrogen supply device: an alternative to a gas bottle in the laboratory. It enables safe use and transport of hydrogen.

A hydrogen-absorbing alloy canister is filled with a hydrogen absorbing alloy that has characteristics of hydrogen absorption and emission. This compact, safe, and reusable canister is a new hydrogen supply tool: an alternative to a gas bottle.



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### 01. Not high pressure gas

This is not an HP gas or pressure vessel because it does not exceed 1 MPa at room temperature. Therefore, it is free from associated regulations, paperwork, and inspections that are necessary to comply with HP gas regulations and required maintenance work. The canister provides a safe and maintenance free environment for experiments.

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### 03. Light and compact construction

It is easily portable in one hand because of its light weight and small size. It is an extremely convenient portable hydrogen source in a laboratory that can be installed anywhere. It requires no mounting brackets, but provides 900 liters (maximum) of hydrogen.

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### 02. Use of hydrogen-absorbing alloy

The hydrogen-absorbing alloy in the canister does not degrade even if used repeatedly more than 2,000 times. Additionally, it absorbs and desorbs only hydrogen molecules selectively. It is therefore able to discharge hydrogen gas of high purity.

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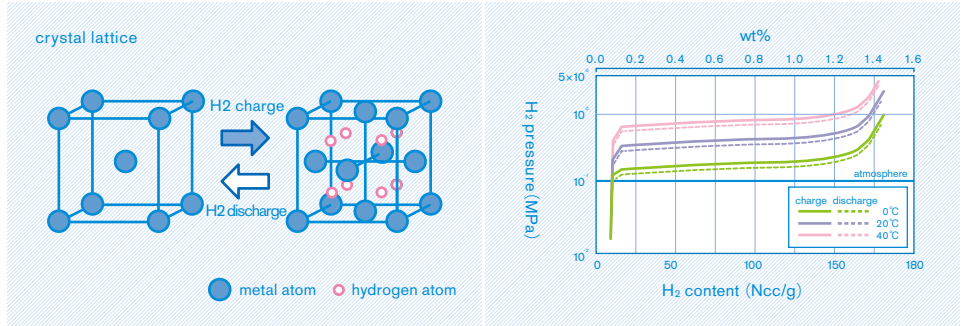
### 04. Safety design

The canister has a safety valve (pressure relief valve). Therefore, it does not exceed the maximum pressure resistance capacity of the container. Furthermore, it has passed various tests related to durability. Because it employs a universal screw standard, it can be connected easily to other devices and fittings.

## Features

### The use of hydrogen-absorbing alloy enables absorption and desorption of hydrogen reversibly

Hydrogen molecules are dissociated with hydrogen atoms on the hydrogen-absorbing alloy surface, binding metal atoms in the hydrogen-absorbing alloy. When emitting hydrogen gas, a hydrogen atom in the hydrogen absorbing alloy binds another hydrogen atom on the surface of the alloy and becomes a hydrogen molecule.



## Example

### Ideal for gas chromatography, or as a hydrogen source for chemical reactions

In addition to being a replacement of a balloon as a hydrogen source for chemical reactions, it is an optimum hydrogen source for FID of gas chromatography and fuel cell batteries. Furthermore, given its compact size, it is convenient for installation into equipment and transportation inside and outside of the facility.



## Other Items

### Enhanced accessories for safe and convenient use

One-touch fittings enable easier connection to and disconnection from equipment without tools. The CANISTER-BASE can insulate the canister and raise the discharge pressure. Additionally, it has a cooling function, making it ideal for refilling of the canister with hydrogen.



## Ordering Information

	Capacity	Dimension	Weight	Discharging Pressure	Code
Hydrogen storage canister	6NL	φ18×92mm	94g	0~0.99MPa	KHCS-6L
(High filled type)	20NL	φ25×133mm	200g	0~0.99MPa	KHCS-20L
Hydrogen purity: 99.999%	60NL	φ51×166mm	0.9kg	0~0.99MPa	KHCS-60LF
	200NL	φ51×270mm	2.1kg	0~0.99MPa	KHCS-200LF
	500NL	φ81×270mm	4.3kg	0~0.99MPa	KHCS-500LF
	900NL	φ89×405mm	7.7kg	0~0.99MPa	KHCS-900LF

	Capacity	Dimension	Weight	Discharging Pressure	Code
Hydrogen storage canister	50NL	φ51×166mm	0.8kg	0~0.99MPa	KHCS-60LP
(High purity type)	175NL	φ51×270mm	1.8kg	0~0.99MPa	KHCS-200LP
Hydrogen purity: >99.999%	400NL	φ81×270mm	3.5kg	0~0.99MPa	KHCS-500LP

## Option

CANISTER-BASE	
Supply voltage	100-240V, 50/60Hz
Power consumption	max 52W
Function	Heating/Cooling
Heating temperature	max 60°C ※ Safty limitter is operated at 60°C
Cooling temperature	0°C ※under room temperature
Corresponding canister size	60L, 200L, 500L
Dimension	210 (D) × 110 (W) × 220 (H) mm
Weight	3.2kg
Code	KHCS-0



For CANISTER-BASE	Code
supported holder for canister 60L&200L	KHCS-BA-OP-1
supported holder for canister 6L&20L	KHCS-BA-OP-2

Joint/Connector	Code
quick-connect (body)	KHCS-BA-OP-3
quick-connect (stem) with 1/8" tube fitting plug	KHCS-BA-OP-4
L-shaped tube joint	KHCS-BA-OP-5
quick-connect (stem)	KHCS-BA-OP-6