

Metal Hydride Canister

Hydrogen Supply Solution

Low-pressure metal hydride canisters enable safe and easy intermediate storage of larger quantities of hydrogen in a very compact form.

They are the ideal solution especially for systems with limited installation space.



Overview

Metal Hydride Canister



Metal Hydride Canister HS60 | HS250 | HS760

Metal hydride canisters utilize metal hydride technology to safely store hydrogen in a compact manner at low pressure. When hydrogen bonds to the metal alloy powder contained in the canisters, it is stored in a solid state at densities many times greater than traditional compressed gas storage.

Easy to use and refill from different hydrogen sources, the canisters are suitable for a wide range of applications.

The metal hydride canisters are available in three sizes with a storage capacity of 60, 250 and 760 standard liters of hydrogen.

Item No. 645, 646, 647

Accessories

Metal Hydride Canister



H₂ Connection Kit 200 bar

With the H₂ Connection Kit, compressed hydrogen cylinders can be connected easily and safely to the Quick Coupling of a metal hydride canister. A pressure reducer ensures that the system's maximum inlet pressure is not exceeded. Available with DIN, BS and CGA cylinder connection.

Item No. 631



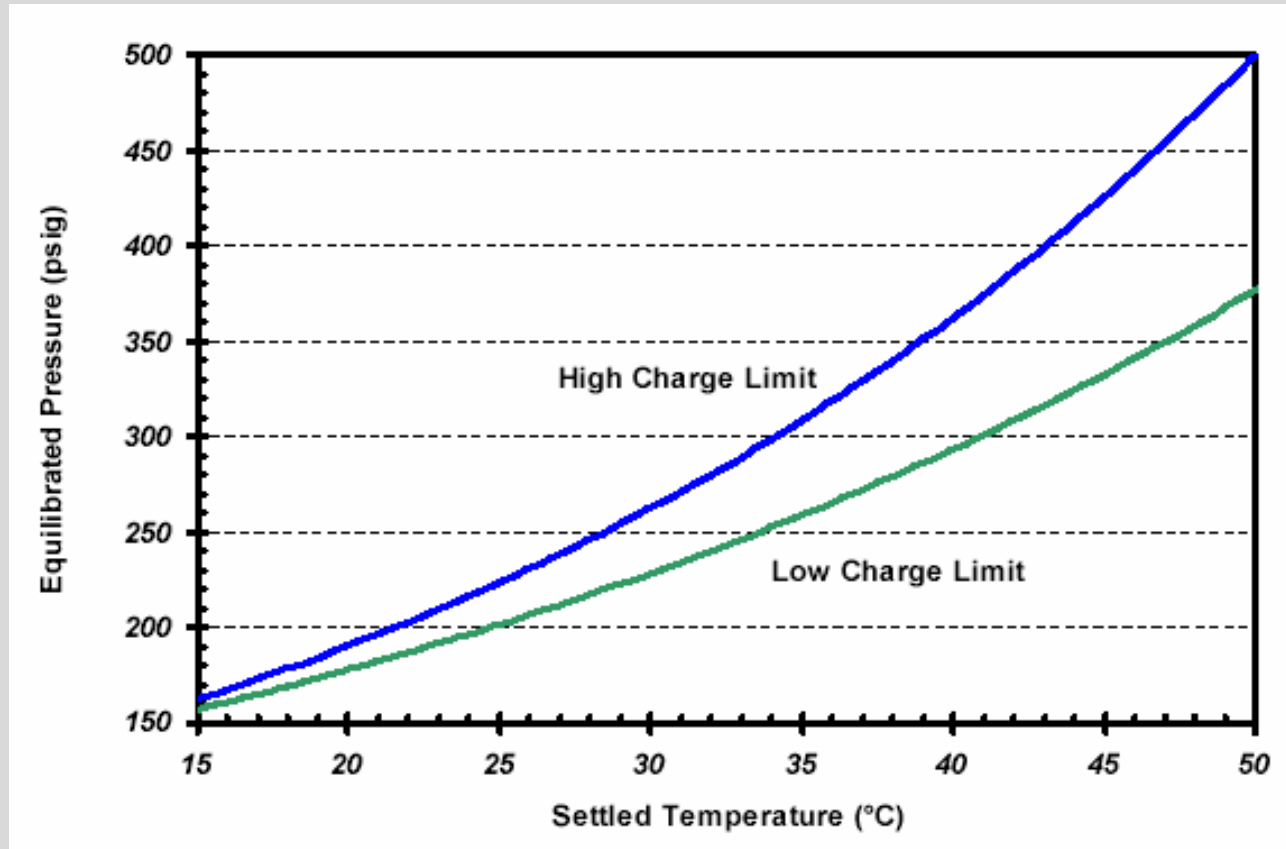
H₂ Detector

A hydrogen sensor for monitoring the workplace and testing for leaks, in addition to a special leak test liquid ensure maximum safety during use of the fuel cell system.

Item No. 731

Pressure Temperature Characteristic

Metal Hydride Canister



Parts list

Metal Hydride Canister

Item No.	Name	Description
Products		
645	HS60 Metal Hydride Canister	Hydrogen storage canister for 60 standard liters of pure hydrogen
646	HS250 Metal Hydride Canister	Hydrogen storage canister for 250 standard liters of pure hydrogen
647	HS760 Metal Hydride Canister	Hydrogen storage canister for 760 standard liters of pure hydrogen
Accessories		
631	H ₂ Connection Kit 200 bar	Connection of compressed gas cylinder to Quick Coupling of metal hydride canister
731	H ₂ Detector	Hydrogen leak detection set including a hydrogen sensor with a display and various acoustic and visual alarm levels as well as leak test liquid

Technical Data

Metal Hydride Canister

Metal Hydride Canister HS60 | HS250 | HS760

Intended gas specification	Dry hydrogen, purity 5.0 or higher
Storage capacity	
If charging at 17 bar gauge (max.)	60 250 760 sl
If charging at 10 bar gauge	≈ 45 ≈ 160 ≈ 500 sl
Discharge operation	
Discharging pressure	Approx. 8 bar gauge at 20 °C (initially higher)
Max. canister temperature	+50 °C
Charge operation	
Recommended charging pressure	10 bar gauge at +20 °C
Max. charging pressure	17 bar gauge
Allowed canister temperature	+15 °C - +30 °C
Physical	
Dimensions (ø x L)	51 x 200 64 x 320 89 x 420 mm
Weight	0.8 2.4 6.5 kg

H₂ Connection Kit 200 bar

Pressure regulator	Single stage, hydrogen gas
Input connection	Hydrogen cylinder connection (DIN, CGA, BS available)
Cylinder pressure	max. 200 bar gauge
Delivery pressure	0 -17 bar gauge adjustable
Recommended operating temperature	+5 °C - +35 °C
Physical	
Dimensions (L x W x H)	190 x 115 x 110 mm
Weight	1.6 kg

10 bar = 145psi
 17 bar = 246psi
 Therefore, charging range is 145-246psi making recharging from Hogen S40 (13.8bar or 200psi) suitable





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