



PRODUCT DESCRIPTION:

The H₂STORE product line from H₂ -Industries is designed to chemically bind large amounts of excess hydrogen in a Liquid Organic Hydrogen Carrier (LOHC). So-called "waste hydrogen", which can occur in processes of the chemical industry, for example, no longer needs to be burned, but can be reused as an important low-CO₂ energy source.

This opens up new market opportunities as a hydrogen producer or dealer. Inside the H₂STORE unit the hydrogen is chemically bonded to the carrier

medium by catalysts at a pressure of approx. 30-50 bar. The resulting enriched LOHC (LOHC+) is fed into the waste heat from this exothermic process is removed from the system and can be used for subsequent processes or other applications.

The size of the plant depends on the specific application and the conditions on site. The system is installed in 20 ft. Containers and is therefore still mobile later on.

GENERAL INFORMATION:

Dimensions in mm (LxWxH)	6,058 x 2,438 x 2,591 mm
Weight	ca. 25,000 kg

INPUT PARAMETERS:

H ₂	ca. 36 kg / h
	ca. 400 Nm ³ / h
	ca. 1,200 kWh
LOHC – (unloaded LOHC)	ca. 517 NI / h (532 l / h at T _{in} = 60°C)

OUTPUT PARAMETERS:

LOHC + (enriched with H ₂)	ca. 630 NI / h (708 l / h at T _{out} = 180°C)
Equals H ₂	ca. 36 kg / h
	ca. 400 Nm ³ / h
Power (P _{el.} & P _{th})	ca. 1,200 kW
Waste Heat Power (P _{thOut})	ca. 360 kW

*NI refers to Standard Reference Atmosphere acc. DIN 1945-1 (p = 1,0 bar and t = 20°C)