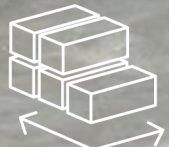
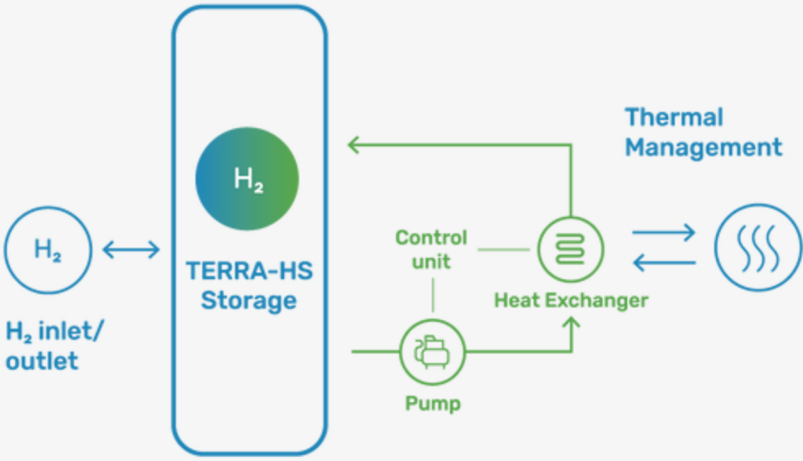



# GREEN ENERGY STORAGE


## Hydrogen Storage (HS) 20' Unit





Sketch displays our HS building blocks, setup for 1,000 kg H<sub>2</sub> storage capacity and including a smart cube for thermal management





- 


Hydrogen storage capacity / unit  
**Up to 250 kg (units can be clustered / stacked)**
- 


Energy storage capacity / unit  
**Up > 8.3 MWh**
- 


Dimensions  
**Standard 20' ISO container**
- 


Transport weight  
**30,000 kg**
- 


Operational weight  
**35,000 kg (Cooling water approx. 3-5 tons)**
- 

Storage unit transportable by  
**Truck & Train**
- 

H<sub>2</sub> loading/deloading mass flow  
**Max. 105 kg H<sub>2</sub> /hr (standard conditions)**
- 

Pressure range  
**0.5 - 40 bar(g)**
- 

Temperature range  
**Cooling: 5-25°C  
Heating: 55-85°C**
- 

H<sub>2</sub> quality spec.  
**5.0 - (99.999%)**
- 

Ad- / Desorption energy  
**~4 kWh / kg H<sub>2</sub>**

# SPECIFICATION



## GKN Hydrogen equipment package



HS Storage Unit



Piping (IN/OUT/SAFETY)



Heat exchanger



Pump



Inertization with Argon/others



Control unit



Electrical installed load:  
<10kW

## Application areas



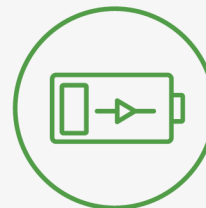
INDUSTRY



BACK-UP  
POWER SUPPLY



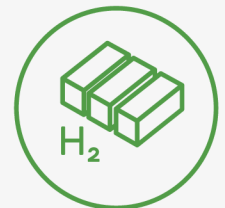
MICRO GRIDS  
& AUTARCHY



ENERGY BALANCING



ELECTRICAL  
VEHICLE CHARGING



H<sub>2</sub> Storage

## Unique advantages

100% recyclable

100% safe – Solid state hydrogen storage at max. 40 bar

Superior energy / space ratio vs. batteries or compressed gas storage

Storage life expectancy of 30 years

Energy storage capacity maintained over lifetime

No compressor needed

## Requirements

- Concrete foundation (building authority)
- Definition of operational mode (off-grid, grid-parallel, back-up power)
- Certification authority request

