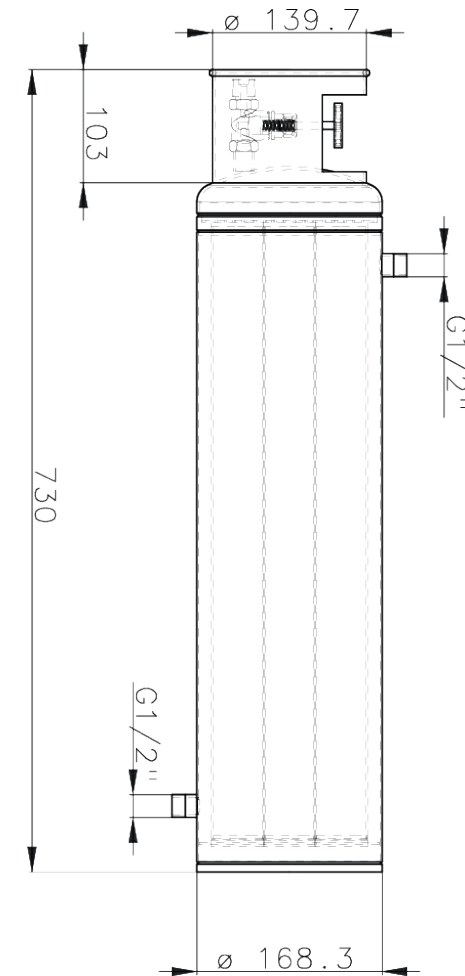


# Metal Hydride Storage Tank - GSH3000

Nominal Hydrogen Storage Capacity	3000 Normal liters
Charging Pressure	15 barg
Charging Temperature	≤ 20 °C
Nominal Hydrogen Charging Rate	50 l/min
Hydrogen Purity at Tank Inlet	≥ 99.995 %vol
Oxygen Content In Hydrogen At Tank Inlet	< 5 ppm
Nominal Hydrogen Discharging Rate*	50 l/min
Hydrogen Delivery Pressure	From 15 to 2 bar
Cooling Water Temperature	≤ 20°C
Fluid Temperature For The Tank Heating	30-50 °C
Cycling Capability	> 1000 cycles
Body Material	EN 1.4301 (AISI 304)
Internal Filter	Swagelok 2 μm
Heat Exchanger	Internal
Hydrogen Connection	Stainless steel valve
Hydride Material	AB5-type metal hydride, LaNi5 based
Outside Diameter	169 mm
Overall Length	755 mm
Weight	40 kg

\*Rated parameters are valid using the heating/cooling circuit with internal heat exchanger.



## Integration

The GSH3000 includes integrated heat exchangers designed for water/glycol coolant loops, supporting efficient heat transfer across both absorption and desorption phases.

Hydrogen release depends on thermal conditions. Higher flow can be achieved with controlled heating when required.

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## Thermal conditions and hydrogen release

Hydrogen desorption is an endothermic process, so the delivery rate is influenced by thermal conditions. Ambient heat can contribute to hydrogen release, while external heating can be used to increase the desorption rate when higher flow is required.