

# HYDROGEN SMART CONTAINER (HSC)

The HSC is a complete hydrogen refueling station in a 20” container. It contains compression, storage and dispensing. The small electrical connection load and the easy portability make it a perfect solution for small fleets as well as for mobile applications like shows, testcases or starting periods.

- Hydrogen dispensing system at 350 and / or 700 bar.
- To be used with different hydrogen sources (electrolyzer, bundles and trailers).
- Cascade refueling.
- Dispense cooled or uncooled at 350 and / or 700 bar.
- An external chiller and heat exchanger for T20, T30 or T40.
- Internal storage capacity of 70 kg.
- Option: additional external buffer storage can be added.
- Different refueling protocols available (SAE J2601, JPEC, customized versions).

## AVG. DAILY PERFORMANCE BY VEHICLE



4 - 15 CARS



1 - 3 BUSES / TRUCKS



8 - 40 FORKLIFTS





**EASILY  
TRANSPORTABLE.**



HSC in use in Madrid, Spain.

## STATE-OF-THE-ART HYDROGEN REFUELING

### REFUELING PERFORMANCE\*

	N° vehicles in a row	Refueling time (min.)	Back-to-back time
 HSC SUPPORTED BY 300 BAR H2 TRAILER	1	5-30	20-30
 HSC SUPPORTED BY 300 BAR H2 TRAILER	1	10-25	40-120

Indicative values: exact figures depend on HSC configuration, H<sub>2</sub> pressure in the trailer and environmental conditions

## GENERAL SPECS:

Dimensions (W x L x H)	20' (6,06 m x 2,44 m x 2,59 m)
Weight (basic configuration)	up to 9.000 kg
Operating display	7" HMI daylight viewable on dispenser
Frame and wall	Steel (powder coated)
Ambient temperature range	-20°C to +40°C
Standards, Guidelines	Machinery Directive 2006/42/EC Low Voltage Directive 2014/35/EU EMC Directive 2014/30/EU ATEX Directive 2014/34/EU Pressure Equipment Directive (PED) 2014/68/EU IEC 61508 - Functional safety of electrical/electronic/programmable electronic safety-related systems ISO 19880-1
Control system	Siemens S7-1500 (failsafe)
Refueling protocol	All state-of-the-art protocols are implemented (SAE J2601, CEP, customized solutions are possible)
Branding	Wolftank branding**

## INTEGRATED DISPENSING SYSTEM:

Nozzle & hose	TK-17, 350 and / or 700 bar
Flame detection system	Temperature sensor
Payment system	OPTIONAL *
Login via RFID	OPTIONAL * (e.g., Login via RFID, Password, ...)
Remote maintenance	OPTIONAL (integrated GSM router or hardwired) *
Calibrated flow control	OPTIONAL *
H <sub>2</sub> cooling system	OPTIONAL * designed as an external system (e.g. container aside or rooftop system)
Infrared communication according SAE J2799	OPTIONAL *
H <sub>2</sub> pressure supply Maximum Allowable Working Pressure (MAWP)	420 bar (H35); 920 bar (H70)

## INTERNAL COMPRESSOR:

Compressor type	Hydraulic
Compressor range	20 to 900 bar
Compression rate	Up to 40 Nm <sup>3</sup> / hr

## INTERNAL H<sub>2</sub> STORAGE :

H <sub>2</sub> supply pressure	at 550 bar 2 sections
Internal storage capacity 550 bar	2-3 sections at 700 ltr. each
Internal storage capacity 920 bar	1 section at 200 ltr.
Additional external sections	OPTIONAL *

## RESOURCES REQUIRED

Electrical power (basic version)	400 V, 3 phase, 50 Hz, 100 A consumption, 125 A connection
N° of H <sub>2</sub> supply inlet connectors	2 (30 up to 500 bar) *
Additional resources	Defined by the installation permit

\* Selection required

\*\* Custom branding option available. Basic Wolftank brand rules apply.



HSC from the inside.