

Hydrogen Refuelling Station

NanoSUN's innovative Pioneer unit is a fully mobile, self-contained and automated hydrogen refuelling station. With combined storage, transportation and dispensing, it offers a low-cost path of delivering transportation grade fuel to point of use.

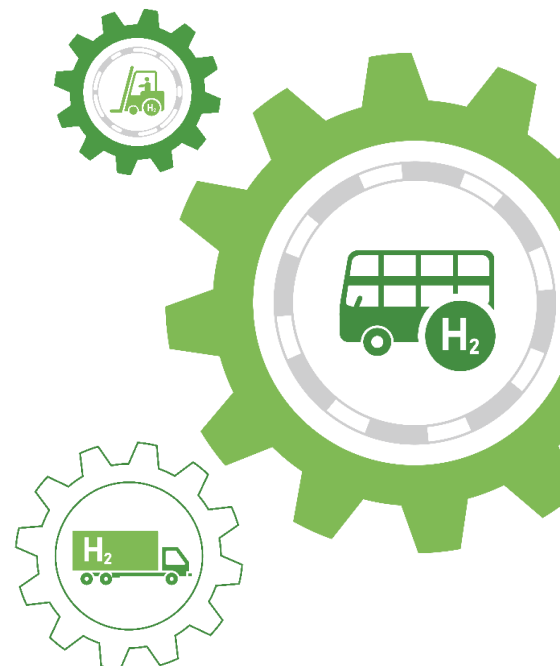
Based on industry standard transport modules and incorporating NanoSUN's proprietary multi-stage cascade, the mobile Pioneer HRS is capable of supplying hydrogen to a range of vehicles.

Pioneer can operate at storage pressures up to 450 bar.



Key Features

- Low cost:** CapEx is significantly lower than fixed hydrogen stations.
- Mobile:** containerised in a standard high cube 20ft ISO for simple transportation & rapid deployment where required; ideal for in-the-field applications.
- Inherent reliability:** mobile units provide back up for a more reliable refuelling network.
- Scalable:** factory assembled using proven industrial components, allowing volume to ramp up when demand is required.



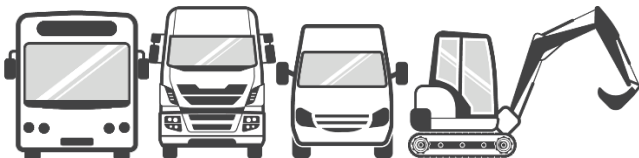
System Specification

Pioneer 145	
Working Pressure (bar)	450
Hydrogen capacity (kg)	435
Pressure Regulation	Yes
Weight (kg)	~18,200 (when full)
Container Dimensions	High cube 20ft ISO
PLC Controlled	Yes
Refuelling Nozzle Type	SAE J2600 standard H35 Nozzle

Refuelling Capabilities



Typical H2 350 bar MHE	Number of Refuels		Approx. Fill Time (mins)
	350kW Storage	450kW Storage	
Class 3	350	750	<5
Class 2	100	230	<5
Class 1	50	120	<5



Typical H2 350 bar Vehicle	Number of Refuels		Approx. Fill Time (mins)
	350kW Storage	450kW Storage	
Delivery Van	20	40	10
Excavator/Small Bus	11	19	15
Large Bus	5	10	20
HGV	3	6	25



Typical H2 700 bar Vehicle	Number of Refuels		Approx. Fill Time (mins)
	350kW Storage	450kW Storage	
Car	35	95	10

Modelling available for customers to suit specified applications.

Compliance

Unit in accordance with:

CE Marking

TPED & ADR (2010/35/EU, EN 12245-3, EN 13807)

PED (2014/68/EU, EN 13807:2003 & EN 764-7/AC:2006)

ATEX Explosive Atmospheres Directive (2014/34/EU, EN 60079)

SAE Standards (J2600)

CEP Refuelling Protocol

Ordering Information

Part No	Description
R-450-14850-9GFV	Pioneer 145 HRS



Low Cost

For more information take a look at our Pioneer video [here](#)

or

Contact us at:

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Easily Scalable



Simple to Use

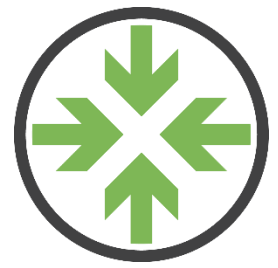
Find out more!



Reliable Network



Mobile Deployment



Combined Solution