

# SmartFuel® mobile hydrogen fueler for material handling applications



## How you benefit

Our SmartFuel mobile hydrogen fueler provides totally self-contained, automated hydrogen dispensing capabilities with zero emissions and no utility hookups. We've designed our mobile fueler to give you unmatched benefits in a variety of situations:

- **Support for pilot programs**—Our mobile hydrogen fueler makes it easy and cost-effective to evaluate fuel cell technology at your facility.
- **Backup supply**—You'll have access to an instantaneous supply of emergency high pressure hydrogen in order to limit downtime.
- **Fueling during fleet conversion**—Early fueling for your material handling vehicles while a permanent system is being installed and during the conversion of your fleet to fuel cells.

Because the SmartFuel hydrogen fueler is storage of hydrogen generated at an external source, there's no fixed capacity to limit the number of forklifts or material handling vehicles you can fill. As your hydrogen fleet grows, swaps are available more frequently until you're ready to add fuelers or a more permanent fueling facility. Our mobile fueler can be used for both short-and long-term deployments.



At Air Products, we are committed to helping you realize the benefits of hydrogen-powered forklifts and other material handling vehicles. Our SmartFuel mobile hydrogen fueler provides everything you need—hydrogen supply as well as self-contained dispensing equipment—at the convenience of your location. Our mobile fueler is especially advantageous for meeting your fueling challenges for early testing and demonstration of material handling vehicles by providing you with a highly reliable, cost-effective, automated capability.

## How our service works

Once a SmartFuel mobile hydrogen fueler has been placed at your fueling location, Air Products will remotely monitor (wireless telemetry) its fuel level and refill it in place or exchange it for a full unit when the hydrogen storage quantity is reduced to a certain level. We also provide maintenance for fuelers and ancillary equipment.

All dispensing equipment is self-contained, and the fill procedure is fully automated. We provide everything you need to fill your forklifts and other material handling vehicles since no utility hook-ups are required. In addition, we can train your people to safely use the fueler.

**Table 1: Dispenser features**

Item	Details
Vehicle interface	SAE J2600 compliant nozzle; Drive-away and break-away protection
User interface	Controlled access by personal identification number; Remote and local E-stop

**Table 2: Fueler features**

Design Parameters	Specification
Total H <sub>2</sub> capacity	60 kg to 150 kg
Usable H <sub>2</sub> capacity	30 kg to 110 kg
Dispensing pressures	350 barg/Optional: 250 barg
Trailer length	16 feet to 26 feet
Trailer width	8 feet

**Table 3: Site requirements**

Item	Details
Foundation required	Bare level surface, concrete preferred
Utilities	None required
Siting Distances	Per NFPA 55

## About Air Products

With more than 50 years of hydrogen experience, Air Products is on the forefront of hydrogen energy technology development. The company has an extensive patent portfolio in hydrogen dispensing technology. Air Products has been involved in over 150 hydrogen fueling station projects worldwide..

Cars, trucks, vans, buses, scooters, forklifts, locomotives, planes, cell towers, material handling equipment and even submarines have been fueled with trend-setting technologies that involve Air Products' know-how, equipment and hydrogen. Use of the company's technology is increasing and is currently over 400,000 hydrogen fills per year.



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