



## FUELING EFFICIENCY

HyRadix's Adéo™ hydrogen fuel generator is the industry leading solution for vehicle refueling and energy needs. Already proven in full-scale transit operations, the Adéo serves refueling stations for fuel cell vehicles and internal combustion engines running on hydrogen and blends of hydrogen and compressed natural gas.

The Adéo generator provides reliable performance for your refueling and energy needs as well as offering safety and peace of mind with its unattended operation and remote monitoring. On-site hydrogen generation for refueling stations serve:

- Fuel cell vehicles
- Internal combustion engines running on hydrogen
- Internal combustion engines running on blends of hydrogen and compressed natural gas (HCNG)



## ADVANTAGES

Customers using the Adéo hydrogen fuel generator experience immediate benefits including:

- Tailored hydrogen purity from 99.95%, using Pressure Swing Adsorption (PSA) technology, free of contaminants such as sulfur
- Integration with existing natural gas or LPG supply
- Unattended operation & integration with compression and storage solutions
- Skid-mounted for ease of installation – requiring only connections to feed stock and utility supply
- Eliminates the cost of hydrogen transport surcharges
- Modular design, small footprint & low profile
- Shop-fabricated and tested to ensure product quality with standard off-the-shelf components that have demonstrated reliability in industrial applications

*PICTURED ABOVE: HyRadix Adéo generates lower-cost hydrogen supply for rapidly growing global demand – Fueling efficiency today.*

## TECHNOLOGY

The Adéo on-site hydrogen generation system combines proven technology innovations to efficiently deliver a high-purity hydrogen product. Ambient temperature desulfurization technology removes odorant and native sulfur from the natural gas or LPG feed fuel. Hydrogen is liberated from the desulfurized fuel by use of HyRadix's proprietary catalytic autothermal reforming technology.

To attain high-purity hydrogen levels and low CO and CO<sub>2</sub> content required for hydrogen vehicle refueling, the product is purified using a Pressure Swing Adsorption (PSA) system. The PSA system incorporated into the Adéo on-site system is a compact, innovative design customized for integration with HyRadix's proprietary technology.

## THE HYRADIX ADVANTAGE

HyRadix is committed to meeting our customers' hydrogen needs in transportation refueling applications. Our engineers work closely with our customers to achieve a smooth implementation of on-site hydrogen generation. We provide complete hydrogen solutions and services including water purification systems, remote monitoring, training and integration assistance.

At HyRadix, we deliver a superior, efficient and reliable method for hydrogen supply. For an initial consultation on how HyRadix can improve your hydrogen supply needs, please contact us at:



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# SPECIFICS

- **FEED**  
Natural Gas or LPG
- **PRODUCT CAPACITY**  
50 Nm<sup>3</sup>/h and 100 Nm<sup>3</sup>/h (1900 scfh and 3800 scfh)  
Module can operate between 25% and 100% of capacity
- **PRODUCT QUALITY**  
*Purity:* 99.95 to 99.999%  
*Oxygen:* < 0.1 ppmv  
*Carbon monoxide:* < 0.1 ppmv  
*Carbon dioxide:* < 0.1 ppmv  
*Hydrocarbons:* < 1 ppmv  
*Water:* < 1 ppmv
- **GENERATED PRESSURE**  
7 barg (100 psig)
- **FOOTPRINT**  
2.1 m x 6.1 m (7 ft x 20 ft)
- **UTILITIES PER 100 Nm<sup>3</sup> HYDROGEN**  
*Natural gas:* 49 Nm<sup>3</sup>  
*Electric power:* 33 kWh  
*Deionized water:* 30 liters (8 gallons)  
*Cooling water:* 25 m<sup>3</sup>/h (110 gpm) circulating  
*Instrument air:* not required

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