

# 30,000 Units



## Kawasaki's Technology for Large-Volume, Long-Term Liquefied Hydrogen Storage

A special tank for large volume storage and a long term supply of liquefied hydrogen (LH2) is absolutely essential in realizing a hydrogen-based society. One of the issues in storing large volumes of LH2 is that of suppressing the boiling off of cryogenic hydrogen (-253°C). Kawasaki has resolved this issue through its advanced thermal insulation technology, resulting in Japan's largest spherical LH2 storage tanks, each with a 540 m<sup>3</sup> capacity.

Since 1994, they have been used for fuel storage for space rockets at Tanegashima Space Center, which is operated by Japan Aerospace Exploration Agency. This technology is being applied to the development of a larger 2,500 m<sup>3</sup> storage unit, corresponding in volume to the amount needed to fill the tanks of 30,000 fuel cell vehicles\*.

Kawasaki is working to develop the technological foundation of a hydrogen energy supply chain — production, transportation, storage, and use. We believe that by handling hydrogen in a manner that is safe, stable, and affordable, we will be able to enhance the quality of life. The road to that future is what we call the Kawasaki Hydrogen Road.

\* This estimate is based on the fact that the amount needed to fill a fuel cell vehicle tank is 5 kg (0.07 m<sup>3</sup>).

### Production



Utilization of unused resources



Production of liquefied hydrogen

### Transportation & Storage



Mass transport of liquefied hydrogen



Long term storage of liquefied hydrogen

### Use



Hydrogen gas turbine power generation



Fuel for fuel cell vehicles

## Kawasaki Hydrogen Road