MIRAIT ONE

News Release

June 11, 2025

MIRAIT ONE Corporation

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MIRAIT ONE Begins Sale of Small-volume, High-pressure Hydrogen Gas to Users of Hydrogen-powered Micromobility and Compact Fuel Cell Products on June 11

- Developed Japan's first 29.4 MPa multi-stage temperature-controlled filling system to provide low-cost service with short lead time -

MIRAIT ONE Corporation (head office: Koto-ku, Tokyo; President and Chief Executive Officer: Toshiki Nakayama) begins sale of small-volume, high-pressure hydrogen gas for users of hydrogen-powered micromobility[*1] and compact fuel cell products effective June 11, 2025. The filling facility is constructed in Osaka Prefecture, with a plan to deliver hydrogen gas nationwide from Osaka. For hydrogen gas filling, MIRAIT ONE developed dedicated equipment capable of simultaneously filling 10 high-pressure hydrogen (small composite) containers at a controlled filling pressure of 29.4 MPa[*2], the first of its kind in Japan, to achieve provision of a low-cost service with short lead time.

Looking at the environment surrounding small-volume hydrogen gas in recent years, while the development of compact fuel cells has been progressing and the commercialization of fuel cells has been expanding in the fields of micromobility and portable fuel cells among others, the establishment of a hydrogen supply chain and the development of a system for filling small-volume hydrogen containers with hydrogen gas have been identified as challenges.

Over the past three years starting in FY2022, MIRAIT ONE, together with its group company, KINKIDENKI Co., Ltd. (head office: Izumi-shi, Osaka; President and Representative Director: Akihiro Nakamura), has been tackling the aforementioned challenges by pursuing an initiative under the Carbon Neutral Technology Research and Development Program run by Osaka Prefecture with the aim of realizing a hydrogen society essential for achieving carbon neutrality. The demonstration period ended at the close of FY2024. Having developed a filling system for compact hydrogen containers, and having established a chain of hydrogen supply processes from filling to transportation and use, we will start selling small-volume, high-pressure hydrogen gas to users of hydrogen-powered micromobility and compact fuel cells from FY2025.

As ancillary services, we also provide rental hydrogen containers and hydrogen fuel cells and relevant equipment sales, maintenance services such as periodic operation and inspection, support for fuel cell installation, and consulting services, with the aim of deploying services covering everything from supplying hydrogen gas to operating fuel cell products.

As for the hydrogen filling system, we have developed a dedicated small-volume, high-pressure hydrogen gas filling facility that can simultaneously fill 10 small 6.8 L high-pressure hydrogen containers (filling pressure of 29.4 MPa, capacity of 2 Nm^3, hydrogen volume of 153 g) and can produce up to 7,200 bottles a year. In addition, our system accommodates filling 1.1 L and 2.8 L (filling pressure 19.6 MPa) containers. Expected applications include not only hydrogen-powered micromobility, but also portable power sources used at construction sites and for various maintenance work, and emergency power sources at data centers, offices, cell phone base stations, and evacuation shelters in the event of a disaster.

Aiming to realize a carbon neutral society, MIRAIT ONE will start selling small-volume, high-pressure hydrogen gas by serving as a local hydrogen supply base, and will expand this system nationwide in the future. Through this initiative, we will contribute to promoting the use of small-volume hydrogen in local communities.

The filling process is as shown in the attachment.

*1 Hydrogen-powered micromobility: A small mobile vehicle that uses hydrogen as its energy source. Examples include hydrogen-powered drones, hydrogen-assisted bicycles, and compact four-wheel mobility.

*2 First in Japan: According to research by Global Steel Partners.
(A company headed by Toshio Takano who is an expert in the hydrogen field)

＜About MIRAIT ONE Corporation＞

Founded in 1946, MIRAIT ONE is a company engaged in building and maintaining various types of social infrastructure with a history spanning approximately 80 years. Based on the wealth of experience and technical expertise we have accumulated in the construction of telecommunications infrastructure, in recent years we have been creating and maintaining society's infrastructure in the energy and transportation fields. By leveraging our technologies in communications, electricity, architecture, civil engineering and other fields, we are working on urban and regional development that connects to the future, including implementing DX in communities and businesses and promoting the use of green energy. Based on our purpose of "co-creating an exciting future through challenges and technology," we aim to create new value that enriches people's lives and realize a sustainable society.

First in Japan to simultaneously fill 10 high-pressure hydrogen containers at 29.4 MPa

[Manufacturing]

- Acquired a license as a Class 1 high-pressure gas producer (capable of producing 100 Nm^3 or more per day)
- Developed a multi-stage, temperature-controlled hydrogen filling system

(Development under the Osaka Prefecture's Carbon Neutral Technology Research and Development Program. Installed and operating in Osaka Prefecture)

- Annual production capacity: 7,200 bottles (6.8 L container) (equivalent to about 14,400 Nm^3)

[Sales]

- Filed as an operator of high-pressure gas sales business
- Filling small high-pressure hydrogen containers: 6.8 L containers (filling pressure of 29.4 MPa), 1.1 L and 2.8 L containers (filling pressure of 19.6 MPa)
- Hydrogen fuel cell rental and equipment sales
- Scheduled to deliver to all areas of Japan, with Osaka as the base