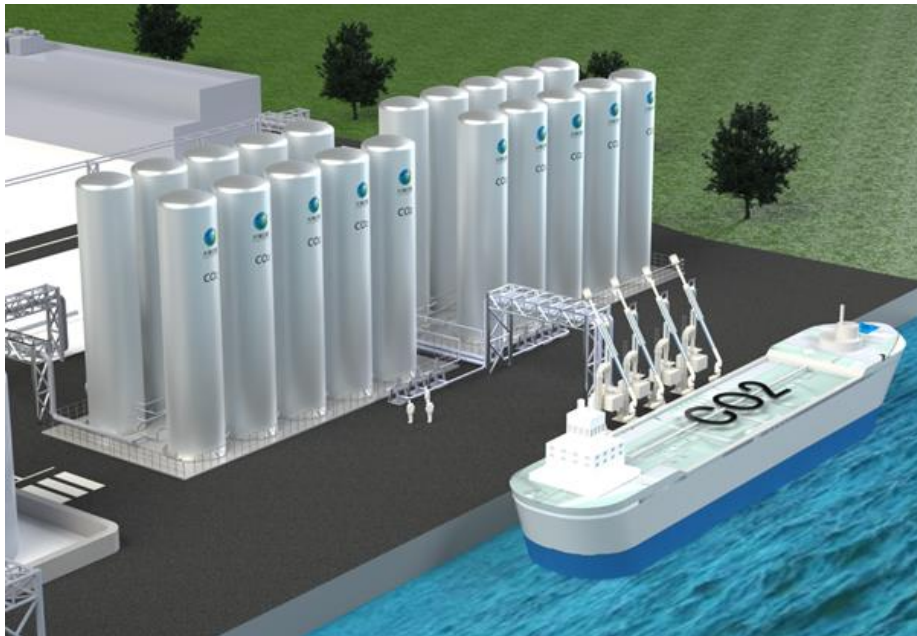




September 20, 2024

Development of CO₂ Shipping Tank Equipment for CCS to Achieve Carbon Neutrality
— Scheduled to be on Sale in Spring 2025 —

Taiyo Nippon Sanso Corporation (Headquarters: Shinagawa-ku, Tokyo; President Kenji Nagata; hereinafter "TNSC"), a Japanese industrial gas business company in the Nippon Sanso Holdings Group, has developed shipping tank equipment for CO₂ capture, storage, and sequestration (CCS), which is an essential component for building a CCS value chain, to realize a carbon-neutral society by leveraging our product expertise in industrial gas product storage tanks. The equipment is scheduled to be on sale in spring 2025. We will continue to contribute to the realization of a carbon-neutral society through the gas control technology that we have developed over many years as an industrial gas manufacturer.



Conceptual diagram of the CO₂ shipping tank equipment for CCS

[Features]

- Vertical cylindrical storage tanks are configured to form multiple units using a well-proven, vacuum-insulated, double-walled storage tank system.
- Compatible with low-temperature, low-pressure CO₂ specifications for CO₂ carriers
- Operational information (pressure, flow rate, etc.) is controlled and managed between the storage tank, shipping, and carrier sides at the time of CO₂ shipment, and there is a safety system that utilizes our gas control technology to prevent dry ice formation.
- Compared to a standard spherical tank, the cylindrical tank has a smaller footprint and greater layout flexibility, making it ideal for Japan's small site environment (it can be installed in spaces where a spherical tank cannot be installed).
- On-site construction is simply a matter of installing the tank product as it is on site. Eliminates the need for long-term on-site fabrication and welders required for spherical tanks, drastically reducing construction time and manpower.
- The vacuum-insulated structure allows continuous operation (no open inspection required by law; compliant with the High Pressure Gas Safety Act)

Table: CO₂ shipping tank specifications

Use	CO ₂ shipping equipment for CCS (shipping terminal)	Compatible with a wide range of applications
System	Vacuum-insulated, double-walled storage tank system	High thermal insulation
Material	Stainless steel	Corrosion and low temperature resistant
Design	Temperature: minus 60°C / Pressure: 1 MPa	Low-temperature, low-pressure specifications
Storage capacity	One tank: 500 tons / One unit: 5,000 tons	Multiple units configurable

【Company Overview】

Taiyo Nippon Sanso Corporation

Business description: Manufacture and sale of various industrial gases such as oxygen, nitrogen, argon, LP gas, gas for medical uses, and specialty gases, manufacture and sale of welding equipment and materials, gas-related devices, and, air separation equipment, assembly, processing, inspection of electrical components, and equipment maintenance

Established: October 30, 1910

Incorporated: February 4, 2020

Capital: 1.5 billion yen

Shareholder: Nippon Sanso Holdings Corporation (Investment ratio: 100%)

Revenue: 414.3 billion yen*

*Note: This figure shows the revenue of Japan for Nippon Sanso Holdings Corporation in FYE2024

Taiyo Nippon Sanso Corporation

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