

ATMOsphere Reapproves Natural Refrigerants Label for Nihon Netsugen Systems

The ATMO Approved label is a global gold standard highlighting best-in-class manufacturers and contractors of natural refrigerant systems and components.

BRUSSELS, BELGIUM, May 9, 2025 /EINPresswire.com/ -- [ATMOsphere](#), a global market accelerator of clean cooling and heating solutions and publisher of [NaturalRefrigerants.com](#), has reapproved the ATMO Approved Natural Refrigerants Label for [Nihon Netsugen Systems](#), a Japanese manufacturer of transcritical CO2 (R744) systems.



This marks the second approval for the company, which was first certified in January 2024. Nihon Netsugen System was the first business in the Asia Pacific region to receive the ATMO Approved Natural Refrigerants Label.

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*Katsuhiko Harada, President
Nihon Netsugen*

“The adoption of our CO2 refrigeration systems is steadily gaining momentum in Japan and Southeast Asia, [including] Malaysia, Singapore and the Philippines,” said President Katsuhiko Harada. “As we continue to expand into the Asia-Pacific area, the ability to maintain 'ATMO Approved' certification is critical to our business growth with a highly encouraging strategic development.”

The ATMO Approved label, launched in June 2022, was created to offer a global benchmark for identifying leading manufacturers of natural refrigerant systems and

components. In 2024, the label's scope expanded to include contractors and installers. In 2024, the label's scope expanded to include contractors and installers. In 2025, the model for the label was updated to quantify avoided TFA (trifluoroacetic acid) emissions thanks to an approved

company's use of natural refrigerants.

Industrial systems

Nihon Netsugen Systems, established in 1987 in Tokyo, manufactures large-scale heat pumps and industrial systems for cold storage, food, chemical and pharmaceutical applications. The company developed its first CO₂ condensing unit, Super Green, in 2015.

Malaysian contractor FFM Engineering recently installed CO₂-based freezers for the Malaysian fish and seafood wholesaler Wing Hann Marine Food using Nihon Netsugen Systems' equipment. An SG-F3 Super Green model with 102.4kW (29.1TR) capacity at -25°C (-13°F) provides cooling for roughly 12,000m³ (42,377ft³) of warehouse space.

"The [facility] owner claims that the [CO₂] system reduces power consumption by more than 40% compared to a conventional freon system," said Mark Leong, Director of FFM Engineering, adding that the system has operated for more than a year, with temperature stability. "[The equipment] delivers what it claims."

Leong reports being a "happy client" of Nihon Netsugen Systems for five years. "The factory is responsible and effective in giving support," he said. Working with the manufacturer, FFM Engineering installed what Leong called the [first transcritical CO₂ system in Malaysia](#) in 2021 in a Kuala Lumpur cold storage facility.

At the ATMOsphere APAC Summit 2024, Saigan Atsushi, President of Frigo, a Japanese refrigerated logistics provider, presented the energy savings the company has realized from using Nihon Netsugen Systems' CO₂ condensing units equipped with heat recovery. "We have achieved an energy savings of 48% less than [our] 2030 target value by using exhaust heat," Atsushi said.

Quantifying PFAS/TFA

A notable addition to the 2025 label criteria is the focus on eliminating PFAS, which includes TFA, a byproduct of the atmospheric degradation of many HFO and HFC refrigerants. Research has linked TFA to environmental accumulation and potential health risks, including reproductive toxicity and liver dysfunction in animal studies. Recent research has deemed TFA a "planetary boundary threat" due to its potential risks to human and environmental health.

"The label criteria around PFAS acknowledges what companies are doing to ensure they are PFAS-free," said Marc Chasserot, CEO and Founder of ATMOsphere. "ATMO Approved companies have the vision and leadership required to navigate the market today and help [organizations] move away from PFAS and global-warming synthetic alternatives."

Best-in-class certification

The ATMOsphere label is designed to help qualified manufacturers and contractors market products and services to new customers and regions in the natural refrigerants marketplace. Certified organizations can display the label on products, marketing materials, email signatures and trade show booths, boosting their visibility and helping end users identify best-in-class suppliers.

To qualify, companies must demonstrate excellence across four pillars:

- Company vision – a commitment to natural refrigerants as a core business.
- Customer satisfaction – positive end-user testimonials confirming reliability and performance.
- Measurable impact – mitigation of CO₂ and TFA emissions.
- Proactive training – investment in employee and stakeholder education.

Additional information on the 2025 label and the registration form can be found at the ATMO Approved Label website.

Nihon Netsugen Systems is the eighth company to be approved for the ATMO Approved label in 2025, following Equans Kältetechnik, Refra, GTS, Fenagy, ENNS Industrial Refrigeration, Zudek and SURE Solutions.

About Nihon Netsugen Systems

Founded in 1987, Nihon Netsugen Systems began R&D of its CO₂ condensing unit in 2012, with the main objectives to provide stable operation in hot summer climates and annual energy savings. In 1999, the manufacturer started a partnership with German manufacturer GEA and has expanded its European connections to include BOCK Compressor, Güntner, Viessmann and Freor. Along with CO₂ equipment, the company also manufactures an ammonia (R717)-based refrigeration unit.

About ATMOsphere

For the past 20 years, market accelerator ATMOsphere (formerly shecco) has been active in helping bring climate-friendly technologies faster to market. ATMOsphere supports over 100 partners worldwide in the HVAC&R sector, where the focus is on sustainable refrigeration, heating and cooling technologies using natural refrigerants.

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