

## HIES introduces plant-based lubricant that reduces air compressor lifecycle CO<sub>2</sub> emissions by 40%

Reduce CO<sub>2</sub> emissions from manufacturing to disposal by approximately 90% during manufacturing. As part of Hitachi's sustainability strategy "PLEDGES," enhance the environmental value of the digitalized assets contributing to the realization of Lumada 3.0.



Plant-based lubricant for air compressors "GREEN SCREW OIL" and oil-flooded screw air compressors

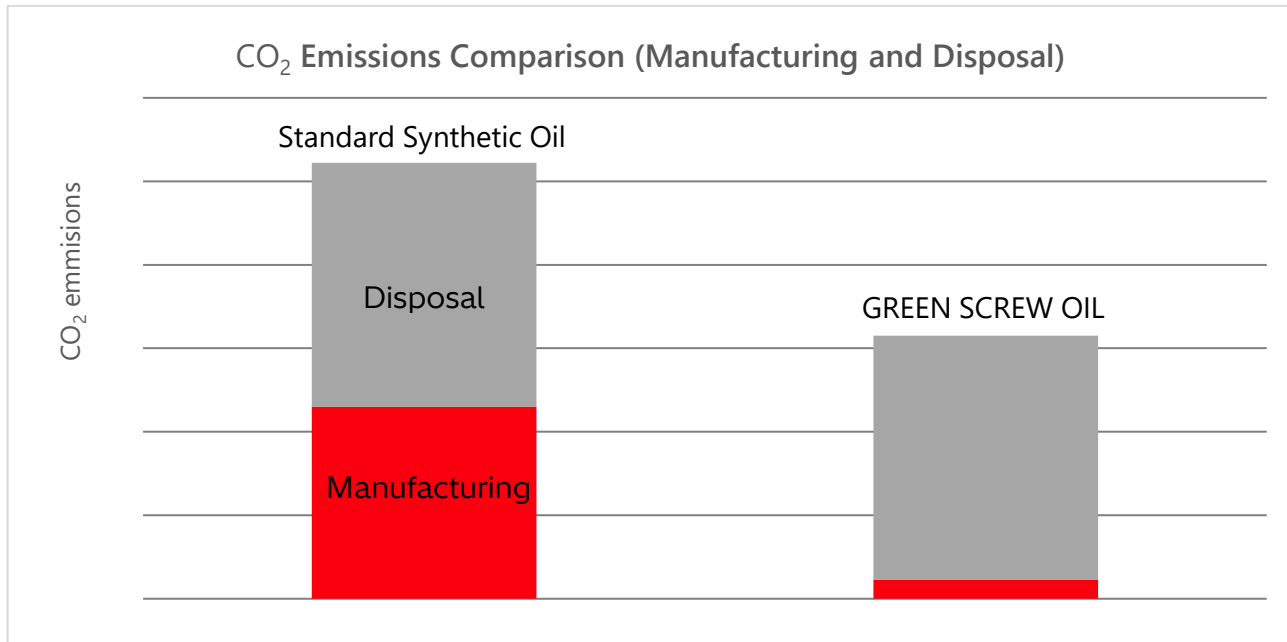
**Tokyo, March 24, 2026** - Hitachi Industrial Equipment Systems Co., Ltd. (hereinafter HIES, part of Hitachi, Ltd. Connective Industries (CI) Sector) has launched "GREEN SCREW OIL", a plant-based lubricant for oil-flooded screw air compressors. Because the plant-derived raw materials absorb CO<sub>2</sub> during growth, the new lubricant cuts manufacturing-stage CO<sub>2</sub> emissions by approximately 90%. Even including emissions at disposal, its CO<sub>2</sub> emissions across the entire lifecycle can be reduced by approximately 40%(estimated value) compared to conventional synthetic oils.

Air compressors are widely used manufacturing and social infrastructure fields. HIES' air compressors form a significant part of the installed base for "HMAX<sup>TM\*1</sup> Industry", a digital service that embodies Lumada 3.0<sup>\*2</sup>, offering predictive diagnostics powered by machine learning and operational/maintenance support through generative AI. Delivered via "FitLive<sup>TM\*3</sup>". These solutions support efficient and sustainable operations. Aligned with Hitachi's sustainability strategy "PLEDGES<sup>\*4</sup>", which is based on the management plan "Inspire 2027," and promotes decarbonization under the P: Planet pledge, "GREEN SCREW OIL" further enhances the environmental value of digitalized assets and supports the creation of more sustainable industrial sites.

### Product Overview

Oil-flooded screw air compressors require lubricants to prevent component wear and provide cooling, as a pair of screw rotors rotate at high speeds to compress air. Conventional lubricants

are derived from crude oil, and CO<sub>2</sub> is emitted during their manufacturing process. “GREEN SCREW OIL” uses plants as raw materials that absorb CO<sub>2</sub> through photosynthesis. This means that during manufacturing, CO<sub>2</sub> emissions are reduced by 90%. Even when considering the disposal stage, total emissions are reduced by 40%. Its performance is equivalent to conventional synthetic oils, and it can be used with a two-year replacement cycle.



Going forward, we also plan to expand this initiative to Hitachi Global Air Power's oil-flooded screw air compressors, which are under Sullair brand within Hitachi Group, and HIES’ oil-free air compressors. Hitachi Group air compressors hold a significant global market share. We estimate that replacing all lubricant used in the Group's air compressors with plant-based alternatives could reduce CO<sub>2</sub> emissions by over 2,000 tons annually.

Hitachi’s Connective Industries (CI) Sector, to which HIES belongs, focuses on “Integrated Industry Automation”, which aims to expand “HMAX Industry” into growth industries horizontally. HMAX Industry provides next-generation solutions for the industrial field that combines data from an abundant installed base of products (digitalized assets), domain knowledge, and advanced AI. As part of the CI Sector, HIES aims to drive innovation for frontline workers through the delivery of “HMAX Industry” that embodies Lumada 3.0.

\*1 Hitachi Group's next-generation solutions leveraging AI to innovate social infrastructure, deployed globally and across industries

\*2 Lumada 3.0: An evolution of Lumada, leveraging AI enhanced with Hitachi's domain knowledge. Lumada is the collective term for Hitachi's advanced digital technologies—solutions, services, and technologies—designed to extract value from customer data and accelerate digital innovation.

\*3 [FitLive® Introduction Page \(Hitachi Industrial Equipment Corporate Site, Japanese only\)](#)

\*4 [Hitachi Ltd. press release \(June 27, 2025\) "Hitachi's new sustainability strategy "PLEDGES"™](#)

**About HIES**

HIES enhances productivity across various industries — including data centers, batteries, electronics and semiconductors and pharmaceuticals — through high-efficiency products such as compressed air systems, grid edge solutions, drives and coding and marking equipment. Our innovative solutions and services integrate digital technology to drive customer success and contribute to a more sustainable society. We support customers throughout the entire product lifecycle, from maintenance to recycling. For more information on Hitachi Industrial Equipment Systems, please visit <https://www.hitachi-ies.com/>

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