

NIPPON KINZOKU Launches Full-Scale Expansion of "Eco-Product" Using Innovative Composite Metal Forming Technology Based on "Fine Profile"

- Achieving production efficiency and enhanced supply chain environmental performance through process shortening and material loss reduction -

NIPPON KINZOKU CO., LTD. (Headquarters: Minato-ku, Tokyo; President: Yasushi Shimokawa; Securities Code: 5491) has commenced the full-scale deployment of its "**Eco-Product**" lineup, comprised of products manufactured using its proprietary "**Composite Metal Forming Technology**," which is based on the long-cultivated **precision profile-rolled products**, "**Fine Profile**," developed at its Fukushima Plant.

By utilizing this **technology that enables processing close to the final product shape**, we will contribute to our customers' **process shortening** and **material yield improvement**, aiming to **reduce environmental impact across the entire supply chain** and **realize a carbon-neutral society**.

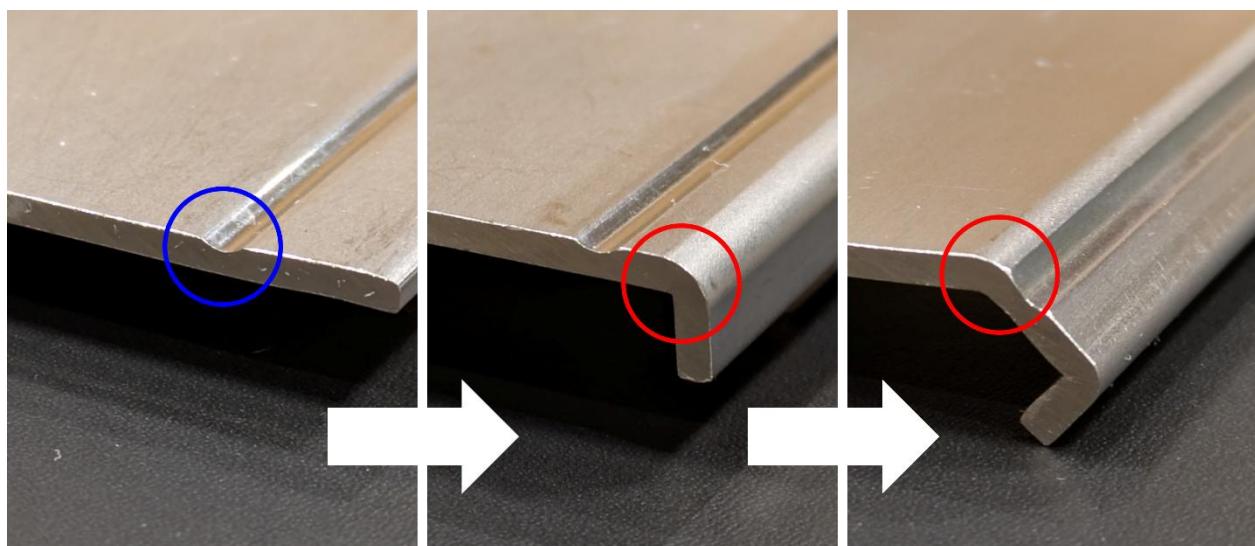


Figure 1: Example of Combined Metal Forming (After Profile Rolling (Blue circle) and Bending (Red circle))

1. Background and Purpose of Development

In recent years, the manufacturing industry faces the urgent challenge of reducing both costs and environmental impact. Particularly in **metal component processing**, **material waste** and **energy consumption** during manufacturing processes have been major issues.

Against this backdrop, our company has been **developing and enhancing our unique "Composite Metal Forming Technology"** by combining the **diverse metal processing technologies** possessed by our Fukushima Plant. This technology aims to **solve our customers' manufacturing challenges** and **contribute to protecting the global environment**. By **forming parts closer to their final product shape**, it reduces secondary processing at the customer's site, achieving **lower material loss** and **shortening production processes**.

2. Features of Composite Metal Forming Technology and Its Value Proposition as an "Eco-Product"

Our proprietary composite metal forming technology significantly contributes to reducing environmental impact and enhancing customer value through the following features.

Achieving complex cross-sectional shapes and significantly reducing material loss

Based on our "**Fine Profile**", we efficiently shape them into **near-final shapes** within our own factory by combining processing technologies such as roll forming and pressing. This **minimizes customer machining**, **improves material yield**, and contributes to **waste reduction**.

Elimination of customer manufacturing processes and increased productivity.

By handling all subsequent processes, such as press forming and sheet metal fabrication, that customers previously arranged, we can deliver components. This **significantly shortens your manufacturing process**, **improving productivity** while **reducing the energy consumption** and **CO₂ emissions** associated with transportation and storage across multiple stages.

Stable high quality through continuous coil material forming

The continuous formation of coil-shaped materials enables the **production of long materials** with **minimal shape variation** and **stable quality**, as well as **highly efficient drilling processes**. (Figure 2: **Examples of composite metal forming**... grooved angles, angles with different plate thicknesses on the vertical and horizontal sides, etc.) **This helps ensure stable production** for our customers and **reduces the occurrence of defective products**.

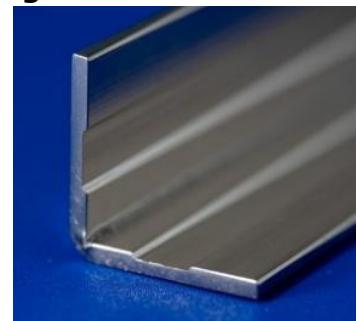


Photo 2: Example of Combined Metal Forming (Grooved Angle)

Based on these features, products **utilizing this technology contribute to optimizing material usage**, **reducing energy consumption**, and **minimizing waste volume**. They therefore meet our certification criteria for environmentally conscious products and will be offered to customers as "**Eco-Product**."

3. Future Outlook

We will actively promote this “**Composite Metal Forming Technology**” as an “**Eco-Product**” to **meet our customers' diverse needs**. Our **11th Business Plan “NIPPON KINZOKU 2030”** establishes “**Near Net Shape (Achieving Complex Forming Processes Close to the Final Product Shape)**” as a key concept. Moving forward, we will continue to provide innovative technologies and products, aiming to become a “**Multi & Hybrid Material company** that co-creates new value that is kind to people and the planet.”

Overview of Fine Profile

Fine Profile is a collective term for products that are continuously processed using proprietary rolling technology. This technology creates non-ferrous and ferrous metals with irregular cross-sectional shapes and varying thicknesses. This technology serves as an alternative to various machining processes, such as cutting and grinding. It contributes to reduced production steps, lower manufacturing costs, and improved yield for our customers.

Our website: <https://www.nipponkinzoku.co.jp/en/corporate-profile/business/precise-processed-products>

Overview of the Fukushima Plant

Our technical hub specializes in the precise processing of various materials, employing metal forming technologies that include precision irregular rolling, roll forming, and press working. We produce items such as Fine Profile and shaped steel products. Our seasoned technicians, with years of experience and extensive know-how, are adept at flexibly meeting our customers' intricate requirements.

Our website: <https://www.nipponkinzoku.co.jp/en/corporate-profile/office/fukushima-plant>

Regarding the 11th Business Plan “NIPPON KINZOKU 2030”

Our company's vision is to be a Multi & Hybrid Material company, dedicated to co-creating new value that benefits both people and the planet. We aim to contribute broadly to society by processing diverse materials with our unique rolling and composite forming technologies, thereby achieving the desired performance of final products at the material level.

To achieve this vision, we are advancing product development with our proprietary technologies, guided by three key concepts: “Multi and Hybrid Material” (utilizing diverse materials), “Near Net Shape” (enabling complex forming processes close to the final product shape), and “Near Net Performance” (creating products that deliver the performance required of the final product through the material itself). By emphasizing new technologies and products, we aim to address emerging needs and transform our business structure.

Our website: <https://www.nipponkinzoku.co.jp/en/investor-relations/strategies>

Note: This document has been translated from a part of the Japanese original. It is provided for reference purposes only. If there's a difference between this translated document and the Japanese original, the Japanese original will take precedence.

*****Contact for Inquiries Regarding This Product and Technical Information*****

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<https://www.nipponkinzoku.co.jp/en/inquiry>