

REFERENCE MATERIAL

May 31, 2023

Kao Exhibited Decoration Processing Technology Utilizing Floating Linear Technology at interpack 2023

Kao Corporation and B&R K.K. presented a decoration processing technology based on floating linear technology, which allows the creation of personalized products to fulfill a variety of needs, at interpack 2023, a processing and packaging industry event.

interpack 2023, the world's largest international packaging and processing trade fair, was held in Düsseldorf, Germany, from May 4 to 10, 2023, with 2,807 exhibitors from 61 countries and approximately 143,000 visitors from 156 countries actively exchanged information on the latest technologies and solutions.

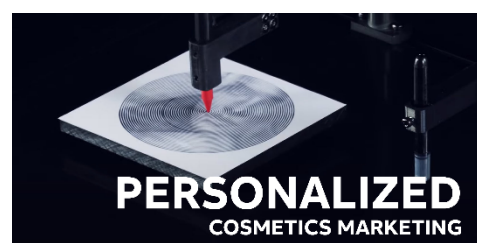


At this event, Kao exhibited a breakthrough device that employs B&R's floating linear technology to enable decorative processing of designs according to the needs of each individual consumer.

Kao promotes ESG-driven *Yoki-Monozukuri*, contributing to a resource-circulating society, by delivering only what is needed through providing personalized products that can offer new value.

■ Exhibit Overview

Kao's decorative processing machine was on display at the B&R booth at interpack 2023. To produce a design, a shuttle containing cosmetic compacts, which serve as the base of the design, is floated, moved, rotated and tilted in succession with high accuracy, and the foundation component is expelled from the nozzle. The provision of personalized products can be realized by combining six-directional motion control technology with a high degree of freedom and accurate injection technology.



Kao aims to realize a sustainable supply chain by achieving flexible and efficient production by promoting cutting-edge technology and DX, while B&R develops innovative solutions. All guests at the venue witnessed the convergence of initiatives by both companies for sustainable manufacturing and cutting-edge technologies.



Many participants from various industries, such as cosmetics, consumer products and food products, visited the exhibition, and the system was highly evaluated. The event was a meaningful opportunity to exchange opinions, such as regarding the future of personalization and effective utilization for high-mix low-volume manufacturing.

To realize a sustainable society, Kao creates opportunities for broad collaboration and promotes open innovation to address societal challenges by communicating its concepts and technologies for *Yoki-Monozukuri* with ESG integration globally.

■ The Supply Chain Kao Aspires for

With the corporate purpose “To realize a Kirei World in which all life lives in harmony,” Kao Group established its ESG strategy, the Kirei Lifestyle Plan in 2019, and since 2021, has been employing the Kao Group Mid-term Plan 2025 (K25) with its vision of “protecting future lives” and “sustainability as the only path.”

Kao is promoting *Yoki-Monozukuri* with ESG integration which preserves resources and reduces the burden on the environment, and is working to help people live richer lives and create a caring and resource-circulating society that develops sustainably.

By utilizing rapidly evolving digital technology and collaborating with various partners, Kao aims to develop innovative technology and build a sustainable supply chain that meets the expectations of society and is kind to people, society and the Earth.

About Kao

Kao creates high-value-added products and services that provide care and enrichment for the life of all people and the planet. Through its portfolio of over 20 leading brands such as *Attack*, *Bioré*, *Goldwell*, *Jergens*, *John Frieda*, *Kanebo*, *Laurier*, *Merries*, and *Molton Brown*, Kao is part of the everyday lives of people in Asia, Oceania, North America, and Europe. Combined with its chemical business, which contributes to a wide range of industries, Kao generates about 1,550 billion yen in annual sales. Kao employs about 35,400 people worldwide and has 136 years of history in innovation. Please visit [the Kao Group website](#) for updated information.

■ Related Information

- [B&R interpack 2023 Event Page](#)
- [Construction of a Resilient New Production System to Respond to Diverse Needs](#)

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