

PRESS RELEASE

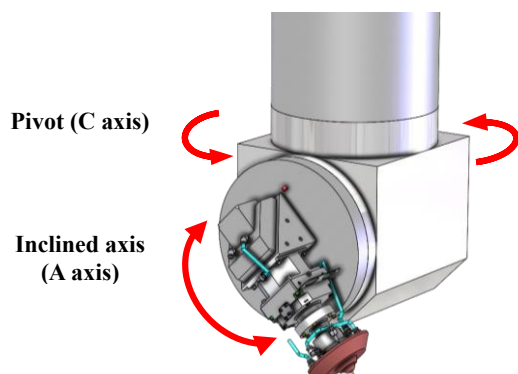
NIDEC Machine Tool Introduces Five-Axis Control 3D Printing Head for LAMDA Series 3D Printers

Enhanced Capabilities for Printing and Repairing Complex Components and Varied Surfaces

Kyoto, Japan – October 21, 2024 – NIDEC Machine Tool Corporation today announced the development of a five-axis control head for its LAMDA Series laser powder DED metal 3D printers. This innovative head expands the capabilities of the LAMDA Series, enabling additive fabrication of large, complex components and adjustable surfaces.

Unlike traditional five-axis modeling machines, the new DED head offers greater flexibility by allowing for independent movement of the head and workpiece. This eliminates restrictions imposed by the 3D printer's design, enabling the fabrication of intricate shapes and widely variable surfaces.

The LAMDA Series, equipped with the five-axis head, features a unique local shield nozzle and monitoring feedback functions to ensure high-quality and stable machining. These advancements make the LAMDA Series ideal for applications such as surface modification, repair, and the production of large molds, tools and components for aerospace, automotive, and industrial applications.



The five-axis control DED head of the LAMDA series

Key features of the new five axis head include:

- **Five-axis control:** Enables additive fabrication at any angle without rotating the workpiece
- **Wide range of rotational axis movement:** Offers flexibility for complex shapes and adjustability for surfaces
- **Compact head design:** Provides easy access to the nozzle and workpiece
- **High speed and responsiveness:** Ensures efficient additive manufacturing processing

NIDEC Machine Tool has been continuously innovating the LAMDA Series since its introduction in 2019. Recent advancements include the development of a second-generation shield nozzle, the launch of the LAMDA500 five-axis additive machine, the introduction of the LAMDA2000 with a gantry-type direct-action mechanism, and the integration of an AI-based printing layer status checking function. NIDEC recently delivered a LAMDA system with five (5) meters of X axis travel for very large scale additive manufacturing and component repair.

At JIMTOF2024, Nidec Machine Tool will showcase the LAMDA Series in Booth AM132 and using samples works, the Company will propose new machining methods that its 3D metal printers will demonstrate.

###

About NIDEC Machine Tool Corporation

NIDEC Machine Tool Corporation is a global leader in innovative machine tool solutions. The company, along with NIDEC OKK, PAMA, and TAKISAWA, works collaboratively to deliver high-quality, high-efficiency machine tools that support various industries worldwide.

Website: <https://www.nidec.com/en/machine-tool/>