

ADDITIVE MANUFACTURING



The integration of 3D additive manufacturing (3D printer) and multi-tasking machine INTEGREX series

Hybrid Multi-tasking machine - A fusion of the next-generation technologies and Mazak's extensive multi-tasking experience

INTEGREX i AM SERIES **ADDITIVE MANUFACTURING**

3D additive manufacturing (3D printer)

As metal powder is discharged from the nozzle tip, the fiber laser melts the material which solidifies to clad or coat the target surface.





3D cladding of different kinds of metal

High density build-up of one material on another.



Near net shape cladding and high-accuracy machining

After cladding of damaged surface, part can be machined to required tolerance in same workpiece setup by utilizing Mazak multi-tasking technology.



3D additive manufacturing

cladding



Automatic changing of 3D cladding heads

The cladding heads are stored in the tool magazine and loaded on the turret by the automatic tool changer. The cladding heads are selected according to the type of process to be performed and the type of metal powder to be utilized.



Process from 3D additive manufacturing to high-accuracy machining









-inish with high accuracy Additive manufacturing applications are found in a wide variety of industries









Repair of turbo impeller for large diesel engine - Inconel 713 parent material - Inconel 718 deposition material



Helical deposition (Near net shape) - Steel substrate parent material - Inconel 718 deposition material



Surface coating - 316 Stainless parent material - Inconel 718 deposition material







Mazak

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This product is subject to all applicable export control

The accuracy data and other data presented in this catalogue were obtained under specific conditions. They may not be duplicated under different conditions. (room temperature, workpiece materials, tool material,

laws and regulations.

cutting conditions, etc.)

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