

To The Press

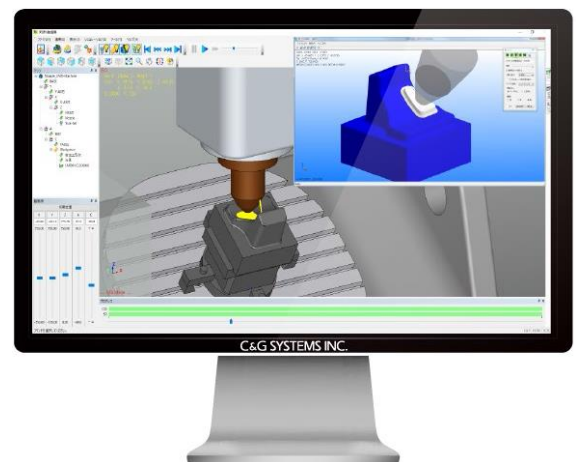
C&G SYSTEMS INC.

Releasing Hybrid CAM That Corresponds to Simultaneous 5-axis

~ Corresponding to Multi-axis Machines for Metal or Resin Laminating and Cutting ~

In July, our company (President: Seiichi Shiota) will release a hybrid CAM system “CAM-TOOL AM” (hereafter “this system”) which is equipped with metal or resin additive manufacturing (AM: Additive Manufacturing) and corresponding to simultaneous 5-axis.

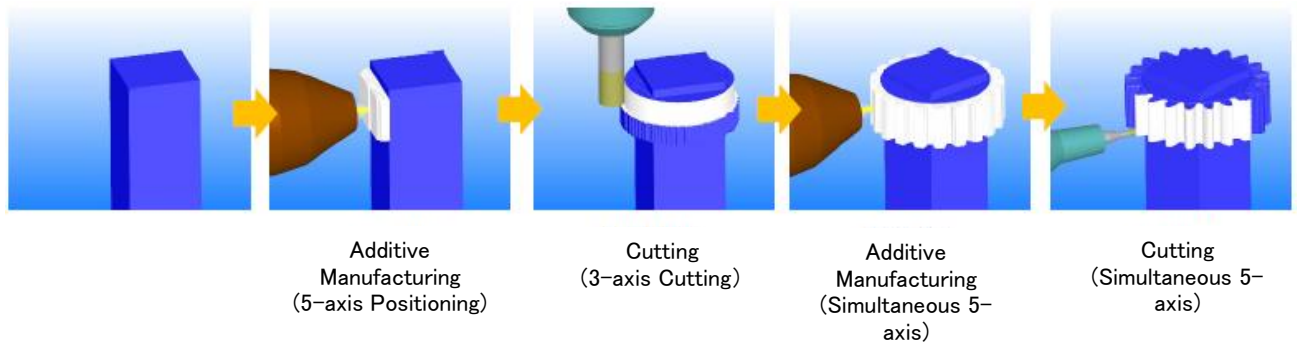
In recent years, domestic machine tool makers' multi-axis machines with functions of both metal laminating and cutting (AM multi-axis machines) have been entering the market one after another and their application to the mass production field such as mold and parts machining is quite promising. Under such circumstances, we have developed this system as the domestic CAM that corresponds to these AM multi-axis machines. We support the new MONOZUKURI that has combined removal machining by cutting and additive manufacturing by laminating by equipping “CAM-TOOL”, a conventional CAM system that corresponds to 5-axis control machining center, with the AM function for laminating molding.



• Process Designing with High Degree of Freedom

This system can conduct the process designing of the combined machining of laminating and cutting and create the data of laminate paths by the same operation as cutting machining. It can be also applied to the lamination on arbitrary freeform surfaces and create flexible paths by high-flexibility process designing and powerful surface modelling functions like cutting of laminated shapes or laminating of cut shapes. Also, it is possible to check the interference of equipment and routs of paths with the machine simulation function, and even at each machining process where laminating and cutting are combined, an appropriate simulation can be automatically done.

July. 9, 2019



▪ Two Kinds of Manufacturing

This system corresponds to the following two kinds of manufacturing for LMD and FDM.

LMD (Laser Metal Deposition) Method

The LMD method where metal powder is supplied to the laser irradiation position from the nozzle, then metal dissolves and solidifies.

FDM (Fused Deposition Modeling) Method

The FDM method where melted resin is ejected from the nozzle, then resin is deposited and solidifies.

▪ Corresponding AM Multi-axis Machines

Currently, this system corresponds to the following AM multi-axis machines.

Corresponding AM Multi-axis Machines (as of July 2019)	
LMD	<ul style="list-style-type: none"> • MITSUBISHI HEAVY INDUSTRIES MACHINE TOOLS: LAMDA • TOSHIBA MACHINE: ZK Series • OKUMA: MU-5000V LASER EX; MU-6300V LASER EX; MU-8000V LASER EX
FDM	<ul style="list-style-type: none"> • ENOMOTO: 3D5X-α

Our company will work diligently to correspond to the AM machining machines which will be newly introduced to the market in the future and respond flexibly to the demand for CAM for AM which is expected to expand.

* * *

[Product Names]

- Package For Metal Lamination: CAM-TOOL AM(LMD)
- Package For Resin Lamination: CAM-TOOL AM(FDM)

* CAM-TOOL AM(LMD) has been developed by C&G SYSTEMS INC. adopting the results of the technology development project contracted to Technology Research Association for Future Additive Manufacturing (TRAFAM) by New Energy and Industrial Development Organization, a National Research and Development Agency.

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* CAM-TOOL AM (LMD) can cooperate with the manufacturing recipe and the thermal deformation simulation service provided by Metal Additive Manufacturing Support System Co., Ltd.

[Product Prices] (All prices below are in Japanese Yen.)

- CAM-TOOL AM(LMD) : ￥7,400,000 -
- CAM-TOOL AM(FDM) : ￥7,400,000 -

*Taxes and the maintenance fees are excluded.

[Sales Target]

We are expecting to issue the total of 20 licenses by the end of 2021.

[Company Information]

- Foundation : July 2, 2007 (*1)
- Capital : ￥500,000,000-
- Description of Business : Development/Sales/Support of CAD/CAM System for Mold & Die, and Production Management Systems

(*1) Our company is a CAD/CAM solution developer founded in 2010 as the result of a business integration and merger with Computer Engineering (founded in 1978) and Graphic Products (founded in 1981).

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