

AMADA Announces the Newly Developed NC Equipment “AMNC 4ie” that Responds to the Challenges of Customers and Society



For fiber laser cutting



For press brakes

On February 3rd, AMADA CO., LTD. (Isehara, Kanagawa, Japan, President: Tsutomu Isobe) announced its new NC equipment “AMNC 4ie”. Equipping machines with “AMNC 4ie” advances them into environmentally friendly machines that can be used by anyone, anywhere.

In addition to a shortage of workers due to the declining birthrate and aging population, the sheet metal processing industry is currently also facing the urgent issue of how to pass on expert skills. Furthermore, there is also an urgent need to address carbon neutrality in the supply chains of global companies.

In order to respond to the customers, social issues and environmental issues, the new NC equipment “AMNC 4ie” supports manufacturing sites around the world based on the concept of four “E”s: Easy (can be used by anyone), Efficiency (can be used anywhere), Environment (environmentally friendly), and Evolution (Growing Together with Our Customers).

■ Main features of “AMNC 4ie”

1. Easy: Can be used by anyone

“Facial recognition” that automatically identifies the workers can be used to automatically activate the operation screen and display language (with support for 15 languages) and switch permissions in accordance with the operator. In addition, inspection instructions given in a video make it easy for anyone to perform inspections, and the work histories are automatically stored digitally, making traceability management possible. Furthermore, on the fiber laser cutting machine, the “automatic nesting of end materials” has enabled the efficient arrangement of products by simply specifying the required products and

number of them. On press brakes too, the machine is equipped with a tablet that moves to the left and right following the worker, and a “guidance” function that provides appropriate advice to suit the worker. This advances the machine into one that does not require any particular level of proficiency.

2. Efficiency: Can be used anywhere

For fiber laser cutting machines, the adoption of remote operation using a mobile terminal makes it possible to monitor the operating status at a distance from the machine while also conducting the centralized management of processes such as materials management, scheduling, and the remote starting of processing. This means that a single person can operate multiple machines, which helps improve the productivity per person. On press brakes, equipping a machine with voice control makes it possible for the operator to hold the workpiece and simply speak the instructions to perform tasks such as starting and stopping the processing and entering correction values. This makes it possible to eliminate unnecessary back-and-forth to the operation panel. In addition, the starting of processing requires activation by a footswitch after the voice recognition, so sufficient consideration has been given to safety.

3. Environment: Environmentally friendly

On fiber laser cutting machines, devices such as the servomotors, chillers and compressors are adjusted automatically when the machine is idling, which reduces CO₂ emissions by up to 65%. In processing too, the consumption of assist gas during processing is reduced with the addition of optimization control for the assist gas during rapid feeding when there is no cutting. On press brakes, an idling stop function was added to automatically adjust the servomotors, heat exchangers and work lights.

In addition, it is possible to monitor the amounts of power consumption and assist gas consumption and display them as a summary of the machine, and also to monitor CO₂ emissions on a per-processing program basis and on a per-product basis.

4. Evolution: Growing Together with Our Customers

The AMADA Group will contribute to solving issues by developing new solutions that help reduce the burden on the environment and also address the need for digital technologies that eliminate the need for skills in processing, allow skills to be passed on more easily, and optimize and automate the entire factory. We will support the entire manufacturing industry by working with our customers to improve overall productivity.

*The information in this release is subject to change without notice. We would appreciate your understanding in advance.