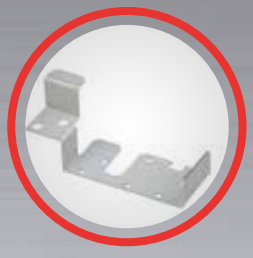
SOLUTION

BENDING

EG 6013 AR

FULLY AUTOMATIC BENDING SYSTEM



AMADA

EG 6013 AR

FULLY AUTOMATIC BENDING SYSTEM

AUTOMATION OF BENDING FROM HIGH-MIX SMALL-BATCH PRODUCTION TO LOW-MIX HIGH-VOLUME PRODUCTION

The EG-6013AR uses a high speed, high accuracy servo press brake with the world's first dual servo press (DSP) drive mechanism. The press brake is combined with a robot optimized for bending small parts with the same speed as human operators. Small parts that involve hazardous operations when handled manually can be thus bent safely and efficiently.

Photograph may include optional equipment

FOUR NEW TECHNOLOGIES OF THE EG-6013AR

1 INTELLIGENT PROCESSING

AMNC 3i

An 18.5-inch wide multi-touch LCD panel is utilised to provide a screen which is both easy to use and easy to view. The screen is designed for intuitive operation similar to a smartphone and enables fast data entry. The user-oriented design of the new NC unit AMNC 3i ensures ease of operation.

DEDICATED CAM

A dedicated CAM system ensures efficient part processing with offline programming, automatic generation of robot motion and no requirement for manual teaching.

A 3D view of the part to be processed is selected from a database and this is then used to determine processing conditions including robot grip positions, tools and bend sequence.

2 HIGH SPEED AND HIGHLY ACCURATE BENDING OF SMALL PARTS FROM A SMALL FOOTPRINT

DEDICATED ROBOT

The dedicated robot has been specifically developed and optimized for the bending process. The arm of the robot is capable of going inside the press brake to bend small parts which have previously been impossible to bend automatically.

Insertion of arm

NEW GRIPPER

A new gripper with both clamp and vacuum gripper functions is used to reduce the number of required robots from two to one. This achieves both a simplified system and a smaller footprint.

Clamp function

Tool change

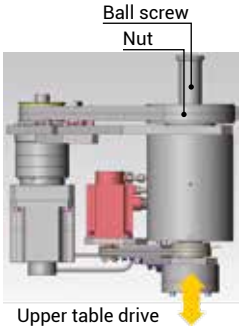
Vacuum function

3 IMPROVED PRODUCTIVITY AND ENVIRONMENTAL IMPACT

NEW SERVO DRIVE SYSTEM (DSP)

Two motors are used in this dual drive system to achieve a maximum tonnage of 600kN and a 10% power reduction when compared with a conventional high-end press brake.

One motor drives a ball screw during high speed opening and closing, whilst the other drives a nut system during the highly accurate bending process.



Upper table drive

4 HIGH SPEED AND SPACE SAVING BENDING

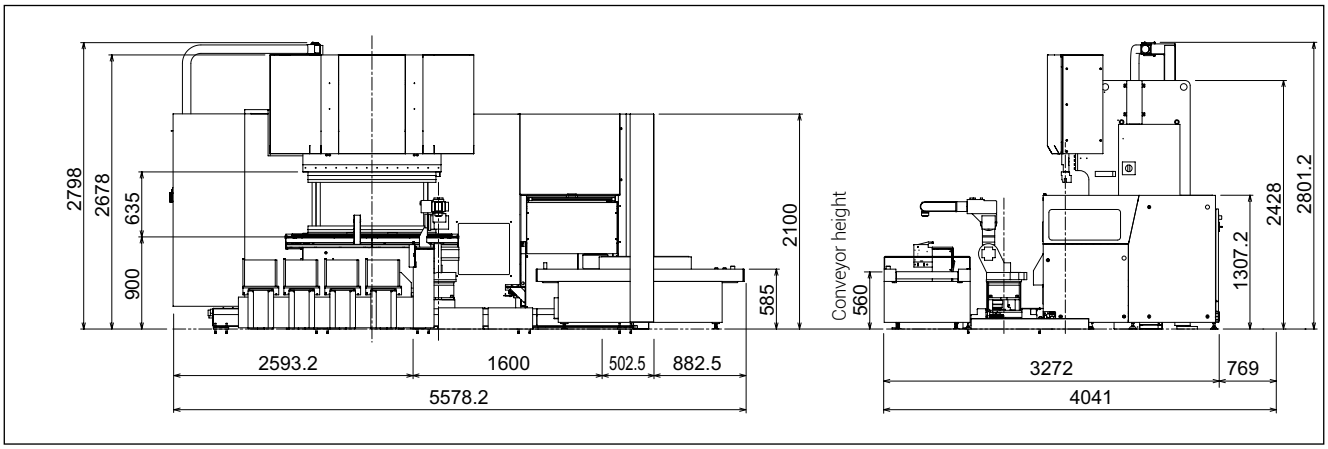
Both tool changing and workpiece handling are performed by a single robot achieving high speed bending from a compact footprint.

VIRTUAL PROTOTYPE SIMULATION SYSTEM

VPSS 3i is the Intelligent, Interactive and Integrated software environment that surrounds the new Amada solutions. This system considers the complete assembly and manufacturing process from the very beginning.

DIMENSIONS

Unit : mm



MACHINE SPECIFICATIONS

PRESS BRAKE			EG-6013AR
Capacity		kN	600
Open height		mm	635 (standard + 150 UP)
Stroke length		mm	150
Approach speed		mm/s	220
Bending speed		mm/s	25 (without robot follow-up)
ROBOT			
Axis composition			Robot: 6 axes, Travel axis: 1 axis
Payload		kg	10 (with gripper)
Travel axis	Stroke length	m	3.2
Grippers	Number of grippers for bending		2 (combination type)
	Number of grippers for tools		1
Tool stockers	Number of tool stockers		10 (stocker type LS)
Loader	Number of loading positions		4
	Workpiece size	mm	300 × 300
	Workpiece stack height	mm	300
Unloader (option)	Number of containers		2
	Conveyor size	mm	600 × 2000
	Conveyor capacity	kg	60
Maximum workpiece size		mm	300 × 300 × 2.3
Minimum workpiece size		mm	40 × 80 × 0.6
Maximum workpiece mass		kg	1.6

Specifications, appearance, and equipment are subject to change without notice by reason of improvement.

For Your Safe Use
Be sure to read the operator's manual carefully before use.
Use of this product requires hazard prevention measures to suit your work.

- Risk prevention measures are removed in the photos used in this catalogue.
- Safety devices recommended by Amada are available as options for your use in taking appropriate safeguard measures to suit the parts you produce.

The official model name of machine described in this catalogue is EG6013AR. Use the registered model name when you contact the authorities for applying for installation, exporting, or financing.
The hyphened spelling EG-6013AR is used in some portions of this catalogue for ease of readability.

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