

Amada HG 1003 ATC ARs

Year 03/2021

Machine hours: about 16.000h



Description

The HG-ARs bending cell was developed to guarantee maximum productivity, flexibility, and precision for both small-batch production and parts of varying sizes. The main components of the HG-ARs are the hybrid press brake with automatic tool changer, the specially developed and highly flexible robot, and the automatic gripper changer unit.

Thanks to the integrated ATC (Automatic Tool Changer) unit, the hybrid press brake with ATC can execute even the most complex tool layouts within minutes. The special and highly flexible AMADA robot, mounted on a linear axis with configurable length, can handle parts quickly and flexibly, offering extremely competitive cycle times. The automatic gripper changer unit (AGC) can accommodate up to nine different grippers, available in various designs and sizes, thus enabling optimal handling of all types of parts. The various solutions for depositing finished parts minimize production cycle interruptions.

Press brake Amada HG 1003

Maximum press force	1000 kN
Minimum adjustable press force	40 kN
Length of press force	3110 mm
Distance between the frames	2700 mm
Throat depth	450 mm
Stroke	250 mm
Opening height	596 mm
Table height	984 mm
Approach speed	1-200 mm/s
Working speed	1-20 mm/s
Return speed	1-250 mm/s

- Hydraulic tool clamping AMTSIII S
- Backgauge finger with tactiler sensors (potentiometer)
- 6 -Axis backgauge with Delta-X function for both fingers
- TDS Thickness detection – Sensors in press beam drive for monitoring of sheet thickness
- System for die cleaning
- DIGIPRO-IR wireless angle measurement device with infrared for connection to control
- Barcode reader in control
- Active angle measurement system BI-S with a pair of sensors, movable by motor
- X-Gauge – side gauge with potentiometer for capturing of lateral position of the workpiece



Amada ATC Tool Changer

The AutoToolChanger uses four manipulators to automatically transport the tools required for the current program, providing direct access to a wide selection of tools. The manipulators position the tools with high precision on the press beam. In combination with the ATC, the hydraulic clamping system ensures secure tool retention.

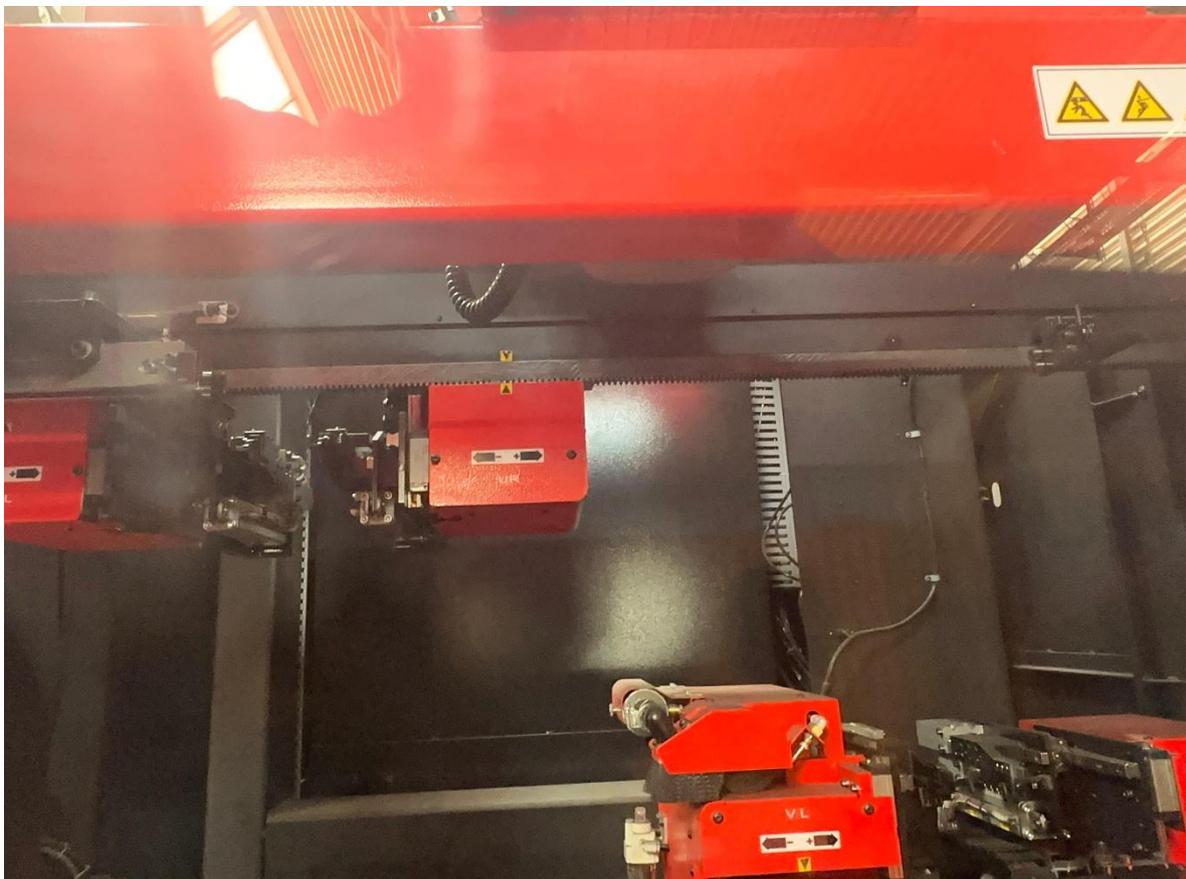
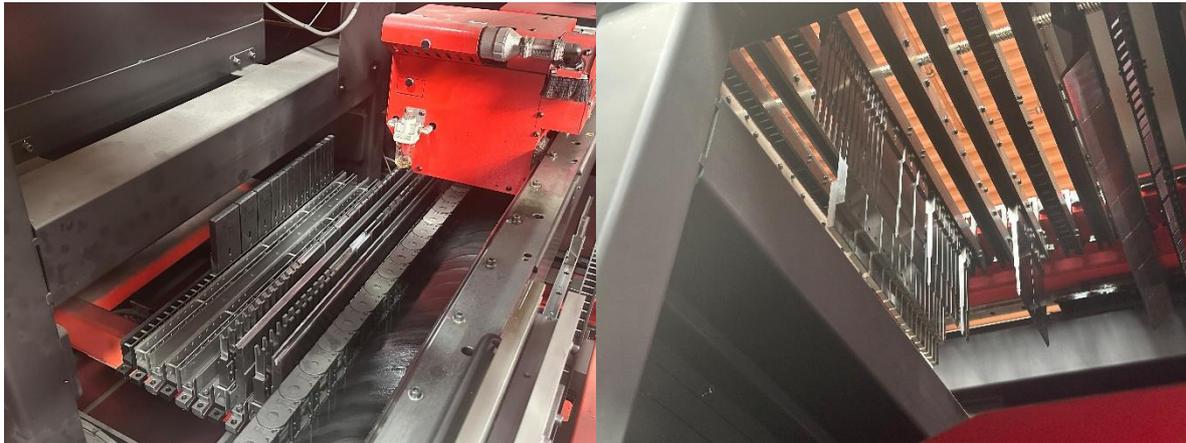
15 magazines for punches

18 magazines for dies

Tool length: 800 mm each

Amada-AMTS IIIS system for punches and dies

Safety door



Loading and unloading robot HD20P

Max. Capacity (incl. gripper)	20 kg
Number of controlled axis	6
Dimension of workpiece min./max.	150x150 / 1000x800 mm
Material thickness	0,5 bis 6mm

- 6-axis robot including separate controller and teach pendant.
- AGC automatic gripper changer with a capacity for up to 9 grippers.
- Floor track for the robot, travel range 8.8 m.
- 1 combination gripper
- 1st loading position including 2 expanding magnets, side stop, and double sheet control.
- Second loading position, including expanding magnets and side stop.
- Re-gripping device for parts up to 1000 x 800 mm.
- Interface for conveyor belt on the unloading side.
- Device for vertical loading of blanks with forming operations.
- Conveyor belt for unloading finished parts.

Security enclosure with electronically locked doors for the cell with a vertically arranged conveyor belt.

Dimensions:

Length	13700 mm
Width	6500 mm
Height	3002 mm

