

SOLUTION

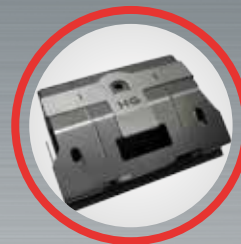
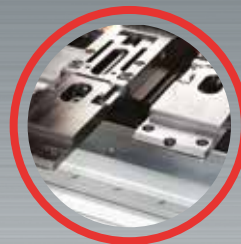
BENDING



HG SERIES



RAPID, PRECISE HYBRID PRESS BRAKE



 **AMADA®**

HG SERIES

RAPID, PRECISE HYBRID PRESS BRAKE

A COMPLETE SOLUTION FOR HIGH SPEED, HIGH PRECISION BENDING REQUIREMENTS

The HG series is a high end bending solution, designed to be versatile and fulfil the requirements of an ever changing production environment. A hybrid drive and rigid frame provide a solid foundation to expand the processing range of your business and cope with future bending applications.

In addition to high speed and high precision bending, the HG series provides significant energy savings and an improved user interface. Utilising an 18.5 inch AMNC 3i touch screen interface, even unskilled operators can achieve a target bend angle at the first attempt. This ease of use, combined with additional production enhancing features, all contribute to shorten lead times and deliver high quality bending results.



Photograph may include optional equipment

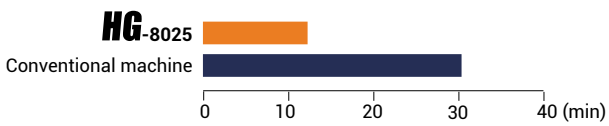
TYPICAL PROCESSING SAMPLES



Material: galvanised steel 1.6 mm
Dimension: 414.2 x 194.6 mm

PRODUCTIVITY COMPARISON

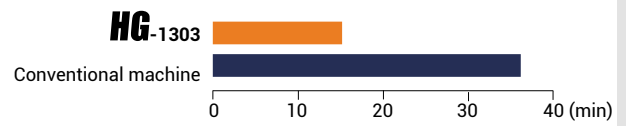
60% TIME REDUCTION



Material: galvanised steel 1.6 mm
Dimension: 531.9 x 180.8 mm

PRODUCTIVITY COMPARISON

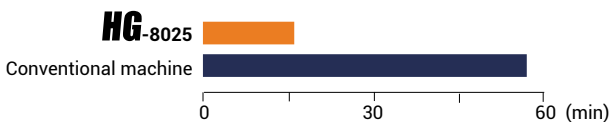
58% TIME REDUCTION



Material: stainless steel 1.2 mm
Dimension: 334.4 x 288.8 mm

PRODUCTIVITY COMPARISON

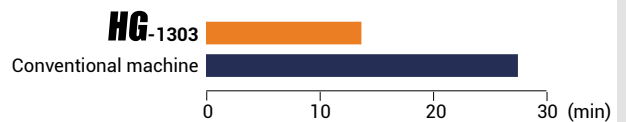
71% TIME REDUCTION



Material: galvanised steel 1.6 mm
Dimension: 857.6 x 283.6 mm

PRODUCTIVITY COMPARISON

50% TIME REDUCTION



EASY OPERATION



AMNC 3i

The AMNC 3i control is optimized for ease of use.



- Multi-touch LCD panel with a user-friendly design provides intuitive smartphone like operation.
- The 18.5 inch vertical display means you can view all the necessary program and bend information on one screen.



1

Program call



2

Bend sequence



3

Setup



4

Processing



ANGLE CONTROL AND ANGLE MEASURING SYSTEMS



DIGIPRO

The Amada Digipro is a highly-accurate, electronic angle measuring device that transmits the measured angle wirelessly to the press brake's NC. The program is then automatically corrected as required, providing a precise bend angle.



Bi-S



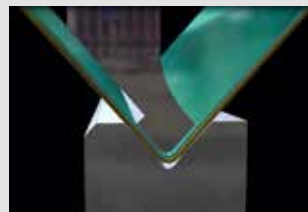
Bi-L

Bi-S & Bi-L

These automatic angle adjustment devices ensure highly accurate bending even when material thickness and properties vary from part to part. This removes the need for test bending and adjustment of the initial bend angle, eliminating scrap and reducing setup time.



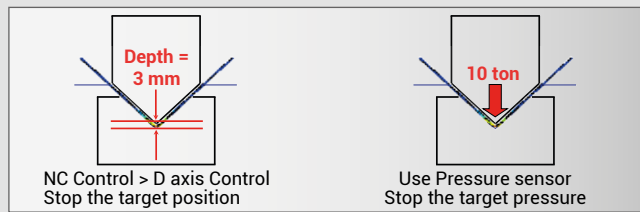
Thickness check



Constant result

THICKNESS DETECTION SYSTEM (TDS)

TDS detects variations in material thickness and automatically adjusts the bend position to provide accurate and stable bending results.



Position Control

Force Control

FORCE CONTROL SYSTEM

Accuracy of the bend is achieved by perfect force calculation and control. This function for angle control is possible with proper tools and angle combination.

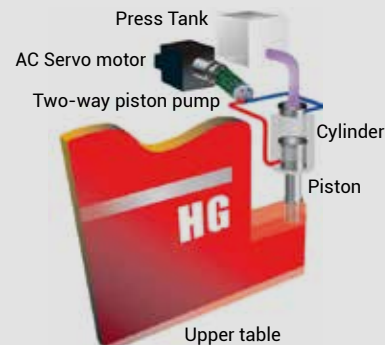
BACK GAUGE AND HYBRID DRIVE SYSTEMS



NEW BACK GAUGE SYSTEM

The **5 axis back gauge** has a tool navigation system whereby the finger indicates the precise position to place the tools.

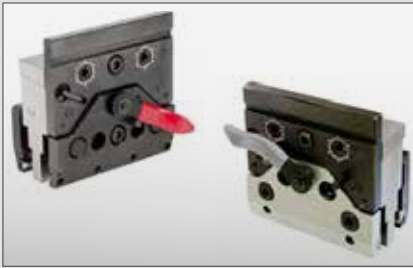
The **Delta X finger** is a useful feature when bending asymmetrical work pieces. A flexible position with pin exchange is possible.



HYBRID DRIVE SYSTEM

The **hybrid drive system** ensures highly accurate bending regardless of the bend length or position on the beam. An electric servo motor controls a variable hydraulic piston pump to provide improved productivity and significant energy savings. This system allows energy savings. The consumption is reduced by 30% in average versus Inverter technology.

FUNCTIONS AND OPTIONAL EQUIPMENT



Manual grip

- Front installation/front removal
- Close the space between grips
- Manual rear plate (option)



Pneumatic auto grip

- Front installation/front removal
- Automatic pull up function
- Easy to reposition and remove grips
- Manual rear plate (option)
- Close the space between grips
- No tubes on rear side



Hydraulic tool holder

- Front installation/front removal
- Easy setting of complicated tool layouts
- No tubes on rear side



Front support

- Front workpiece support
- Height and lengthwise adjustment
- Retractable
- Parking stations



Sheet follower

- Improves accuracy and safety
- Assists the operator
- Eliminates the need for a second operator



LED light (rear and front)

- LED lights are installed on each side of the upper beam to increase visibility at the work area

BENDING CAM SOFTWARE

vPSS 3i Bend automatically selects tools, creates tool layouts and bend sequences.

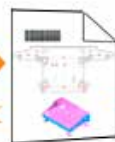


Auto Batch Mode

CAM software makes programs without operator intervention.

Common Tool layout

CAM software proposes a common tool layout for a maximum of 99 parts.



The AMNC 3i control uses offline programs to reduce setup time and increase machine efficiency.



VIRTUAL PROTOTYPE SIMULATION SYSTEM

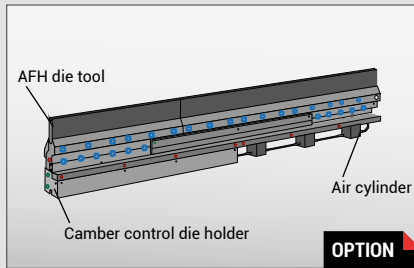
vPSS 3i Bend is the Intelligent, Interactive and Integrated software environment that surrounds the new Amada solutions. This system considers the complete assembly and manufacturing process from the very beginning.





Automatic slide foot pedal

- The pedal moves according to the operators position to avoid manual repositioning, improve ergonomics and save time



Anti camber system

- Reduces camber due to laser cutting
- Software calculates correct pressure according to mechanical properties
- This system can also be used for hemming bends



Sensor fingers

- Eliminates gauging errors
- Sensor pauses the bend process when the part is separated from the gauge



Hand wheel

- Adjust all axis
- Easy and flexible manual adjustments



Bar code reader

- Built-in bar code reader
- Eliminates program search time and errors



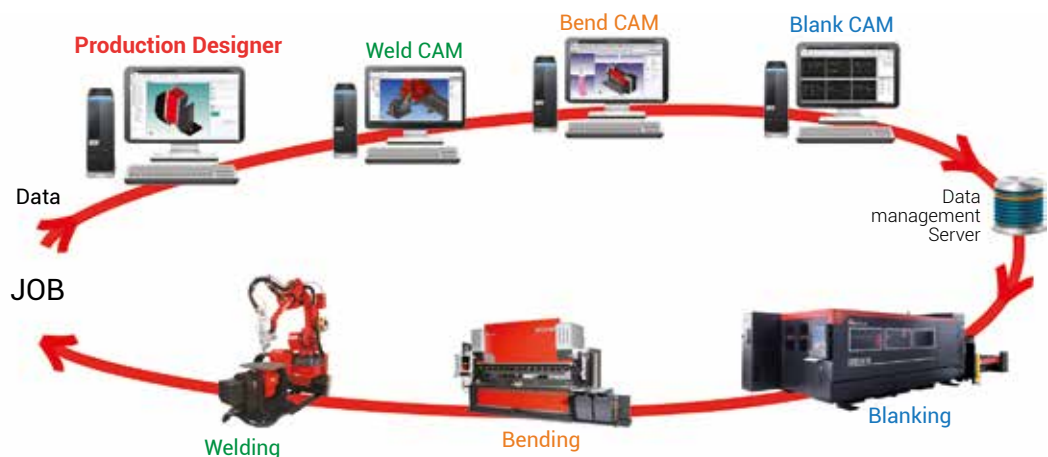
Safety device

- Laser system type (AKAS III P)
- Light guard type (SICK)

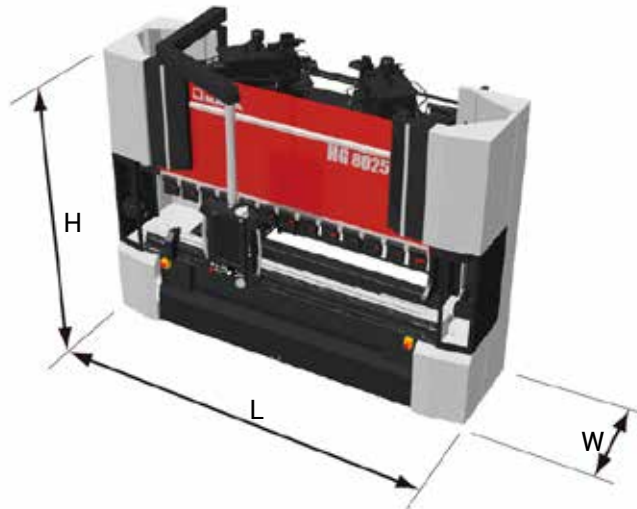
THE SHEET METAL DIGITAL FACTORY

Amada proposes digital manufacturing using vPSS (Virtual Prototype Simulation System).

All data is created in the office and utilised in the workshop via a network.



DIMENSIONS



HG		5020	8025	1003	1303	1703	2203	2204
Total length (L) + 1400 mm with NC arm opened	mm	3080	3590	4080	4100	4150	4180	5240
Total width (W) + 120 mm with X delta X	mm	1860	1860	1860	1962	2020	2020	2020
Total height (H)	mm	2817	2842	2873	3035	3169	3035	3196
Total weight	kg	5400	7400	8800	11500	15900	18500	21500

MACHINE SPECIFICATIONS

HG		5020	8025	1003	1303	1703	2203	2204	
Capacity	kN	500	800	1000	1300	1700	2200	2200	
Beam length	mm	2150	2600	3110			4300		
Table width	mm	60			90				
Distance between frames	mm	1700	2210	2700			3760		
Throat depth	mm	450							
Open height (with punch holders)	mm	520 (400)							
Stroke	mm	250							
Working height	mm	950							
Number of crowning cylinders		2			3				
Maximum approach speed	mm/s	220							
Maximum bending speed	mm/s	20							
Maximum return speed	mm/s	250							
Axes number controlled (Included XΔX)		9 (11)							

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.
When using this product, appropriate personal protection equipment must be used.

The official model name of the machine described in this catalogue is HG. Use the registered model name when you contact the authorities for applying for installation, exporting, or financing. The hyphenated spelling HG SERIES is used in some portions of this catalog for ease of readability. Hazard prevention measures are removed in the photos used in this catalogue.

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