With more than 125,000 press brakes and 1,500 bending cells installed, AMADA has a long history and extensive knowledge of the sheet metal folding market.

The reasons for this are simple: excellent technical knowhow, being responsive to customer needs and producing reliable and accurate machines. We meet our customer’s expectations by listening carefully to their needs and responding accordingly.

In addition, we have equipped the HFE M2 with the latest technological developments, useful to both the operator and the investor. A new digital touch screen control, energy and oil saving, and a new range of labour and time saving accessories are standard features.

The goal is to make the HFE M2 more efficient and easier to operate but also environmentally friendly.
TYPICAL PROCESSING SAMPLES

POINT OF SALE EQUIPMENT

Material: mild steel 0.8mm
Length: 1,500mm
Total number of parts: 12 - Total number of bends: 64
Processing time: 7min 28s

TOOLING STORAGE

Material: zinc coated 1mm
Total number of parts: 5 - Total number of bends: 32
Processing time: 4min 16s

RAILWAY INDUSTRY

Material: mild steel 3mm
Total number of bends: 12
Processing time: 1min 36s

AGRICULTURAL INDUSTRY

Material: mild steel 4mm
Total number of bends: 6
Processing time: 42s

BUILDING EQUIPMENT

Material: zinc coated 1.2mm
Length: 2,500mm
Total number of bend: 7
Processing time: 49s

ELECTRICAL INDUSTRY

Material: mild steel 1.2mm
Length: 3,000mm
Total number of parts: 2 - Total number of bends: 16
Processing time: 1min 52s
For special applications, manual mode programming allows the operator to create personalised programs.

The NC control is capable of generating programs automatically. It takes into account bending constraints and ergonomics, including gauging position, component handling, bend order and required tolerance.

It is possible to remotely monitor the operation of the machine, transfer programs and perform diagnostics.

The AB Pad simulator runs on a Windows-based PC or tablet and allows offline programming of the press brake.
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-J / Bi-M

Automatic angle adjustment ensures 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.

BENDING PRECISION

**CONSTANT ANGLE WITH PARALLEL BEAM DEFLECTION**

The bend accuracy of a press brake is affected by, amongst other factors, the deflection of the upper and lower beams. Conventional press brakes deflect in opposite directions. In fact, the penetration of the punch into the dies is not constant and the angle is not uniform along the length of the machine.

AMADA’s solution: using the principle of parallel deformation. The HFE M2 press brakes are equipped with AMADA’s patented lower beam as standard, giving “Parallel Deflection” under all bending loads. This concept ensures consistent punch penetration into the vee die, over the full bending length under all loads and conditions.

For higher tonnage versions the lower pins in the centre. This lower beam is secured to the machine frame by means of two pins in the centre of the lower beam, this allows for a certain degree of movement. Thus, when the cylinders exert the bending force at the extremities of the machine, the beam deflections are parallel.

For the machines below 130 tonnes the same result is obtained using a specially designed lower beam.
ADAPTABLE PRODUCTIVITY

BACK GAUGES SYSTEM

The back gauges of HFE M2 are available in two forms: 2 axes X, R and 5 axes X1 X2, R, Z1, Z2.
A special back gauge is available for the HFE-5012 M2: 2 independent X, 2 independent Z and one R axis.

The Delta X finger is a useful feature when bending asymmetrical work pieces. This option complements both 2 and 5 axes versions. It allows the creation of an offset between the two X-axis fingers, even when they are close together.

ENVIROMENTAL CONSIDERATIONS

THE ECO DRIVE SYSTEM

The Eco drive system continually monitors and self-adjusts the bending requirements – providing benefits such as 20% less energy usage, reduced maintenance, less oil consumption, lower noise levels and increased reliability.

Optional on 4 Axis Models

LINE UP

HFE-5012 M2*
HFE-1703 M2**
HFE-2204L M2**

*HFE-5012 M2 has different functions/options compare to other models  ** Machine shown with optional extra features
FUNCTIONS AND OPTIONAL EQUIPMENT

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

Manual clamps (S-grip)
- Front installation/front removal
- Prevent falling tools by mechanical groove
- Can be installed side by side
- Clamping achieved by lever operation
- Wedge adjustment by dial mechanism

Automatic clamps (A-grip)
- Front installation / front removal
- Automatic pull up function
- Easy to reposition and remove clamps
- Manual rear plate (option)
- Can be installed side by side
- No tubes on rear side

Hand wheel
- Adjust all axis
- Easy and flexible manual adjustments

Finger pin
- Flexible position with pin exchange

Safety device
- Laser beam type (AKAS III P)
- Light curtain type (SICK)

LED light (rear)
- An LED light is installed to the rear side of the upper beam to increase operator visibility

Front support
- Front workpiece support

Sheet follower
- Improves accuracy and safety
- Assists the operator
- Eliminates the need for a second operator
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 machine described in this catalogue is HFE M2. Use the registered model name when you contact the authorities for applying for installation, exporting, or financing.

Hazard prevention measures are removed in the photos used in this catalogue.

Note: HFE-5012 M2 has different functions/options compare to other models. For further details please contact your sales subsidiary.

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

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