



# SOLUTION

## **HFE 3i** SERIES

ADVANCED BENDING SOLUTION WITH 3D CONTROL



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## ADVANCED BENDING SOLUTION WITH 3D CONTROL

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### COMPLETE RANGE TO COVER ALL OF YOUR BENDING NEEDS

Built on the solid foundation of the HFE series, AMADA's HFE3i press brake models include additional production-enhancing features and an innovative touch-screen AMNC 3i interface.

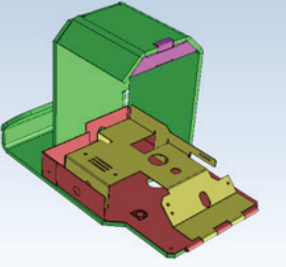
An 18.5" multi-touch display offers multiple modes of data entry (angle, depth, 2D and 3D) for ultimate programming flexibility.

A user-friendly graphic interface and tool library assist operators in the quick set-up of complicated parts.



Photograph may include optional equipment

# TYPICAL PROCESSING SAMPLES



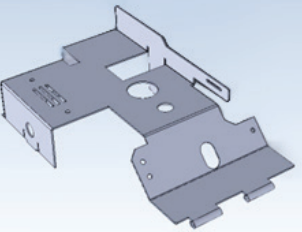
Mild steel  
0.8 mm, 1.0 mm, 5.0 mm  
240 x 142 x 172 mm

**PRODUCTIVITY COMPARISON WITH A CONVENTIONAL MACHINE**

**62% TIME REDUCTION**

**HFE 3i** [Red bar: ~0.8h]  
Conventional machine [Olive bar: ~2.5h]

0 1h 2h 3h



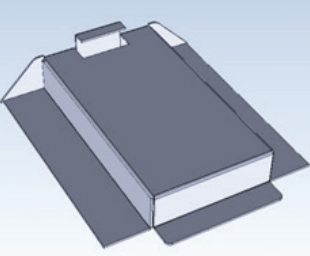
Mild steel 1.0 mm  
189 x 99 x 50 mm

**TIME SAVING FROM BI-S USAGE**

**62% TIME REDUCTION**

**HFE 3i** [Red bar: ~15 min]  
Conventional machine [Olive bar: ~45 min]

0 30 min. 1h



Mild steel 0.8 mm  
99 x 86 x 22 mm

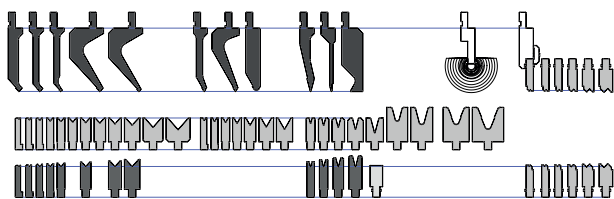
**TIME SAVING FROM COINING MODE USAGE**

**64% TIME REDUCTION**

**HFE 3i** [Red bar: ~15 min]  
Conventional machine [Olive bar: ~45 min]

0 30 min. 1h

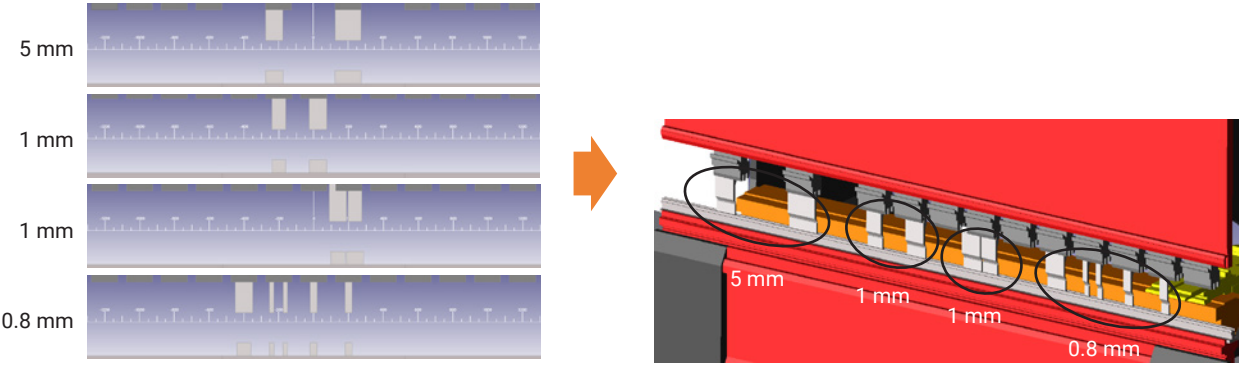
## BENDING TOOLS



### AFH & STAGED BEND TOOL

AMADA Fixed Height and Staged Bending tools are the best solution to minimise set-up operations.

**"COMMON TOOL LAYOUT" by automatic software**  
Example: One layout for 4 workpieces




**PREVIOUS** **NOW**

# HFE 3i SERIES

## EASY OPERATION

**Bending CAM Software**

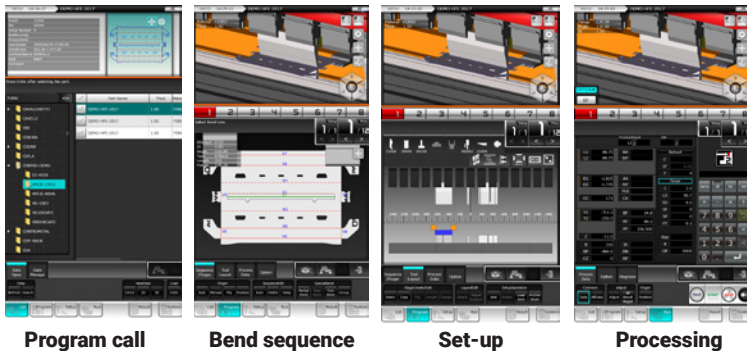
**VPSS 3i BEND** automatically selects tools, creates tool layouts and bend sequences.



**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 set-up time and increase machine efficiency.



## VIRTUAL PROTOTYPE SIMULATION SYSTEM

VPSS 3i suite 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.

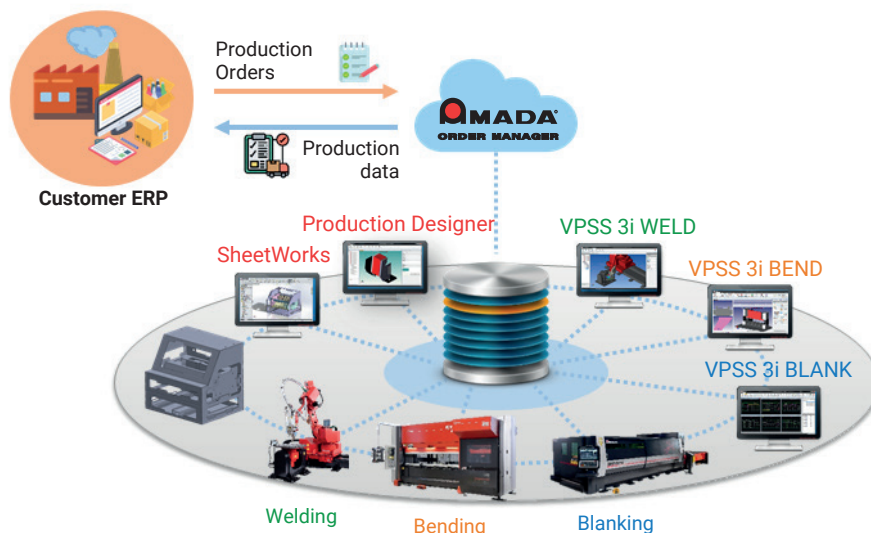
## AMNC 3i NUMERICAL CONTROL

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

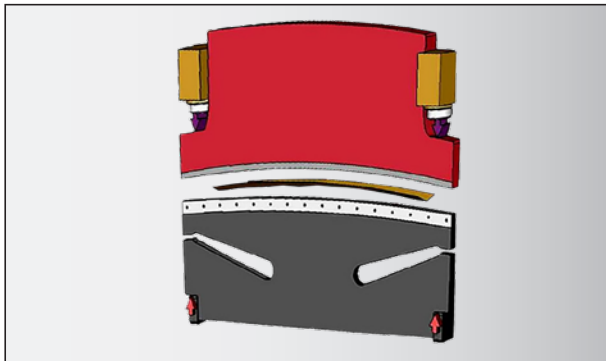
- Multi-touch LCD panel with a user-friendly design provides intuitive smartphone like operation.
- The 18.5 inch vertical display means you can view all the necessary program and bend information on one screen.

## A BRIDGE BETWEEN ERP AND AMADA ECO-SYSTEM

AMADA Order Manager (AOM) is the new Cloud-based platform created by AMADA. Thanks to the AMADA standard data exchange interface, the customer's existing ERP system can be easily connected to AOM to allow the production data to be sent to the AMADA machines and for collecting the machine production data. AMADA provides a suite of perfectly integrated software products. Each software technology can take advantage of the VPSS concept (Virtual Prototype Simulation System) to lead to a total, enhanced and error-free production with AMADA machines.

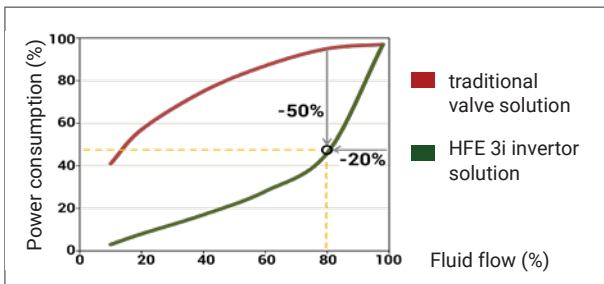


## CROWNING SYSTEM AND ECO DRIVE SYSTEMS



### CROWNING SYSTEM

The HFE 3i 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 V die, over the full bending length under all loads and conditions.



### THE ECO DRIVE SYSTEM

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

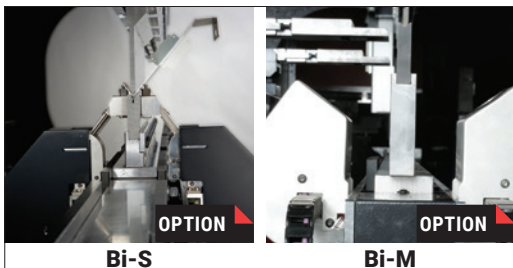
## ANGLE CONTROL AND ANGLE MEASURING SYSTEMS



### 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.

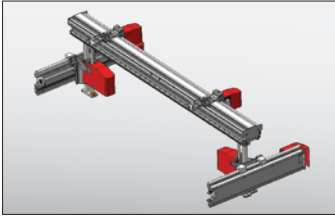


### Bi-S & Bi-M

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 set-up time.

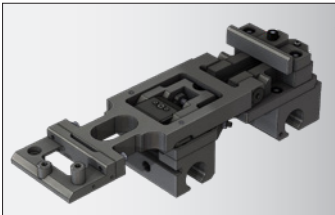
# HFE 3i SERIES

## STANDARD EQUIPMENT AND FUNCTIONS



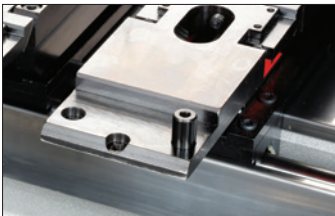
### New back gauge system

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



### Fast Finger

The back gauge with active security allows to increase the productivity and safety with low impact force and maximum speed. (Only available on low tonnage machines).



### Finger pin

Stable gauging by flexible PIN position.



### SGRIP

- Front installation/front removal
- Space between grips can be eliminated
- Manual rear plate (option)



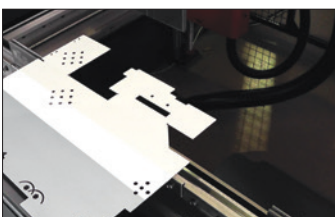
### Hand wheel

- Adjust all axis
- Easy and flexible manual adjustments.



### Bar code reader

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



### LED light (rear)

A LED light is installed to the rear side of the upper beam to increase operator visibility.

## OPTIONAL EQUIPMENT AND FUNCTIONS



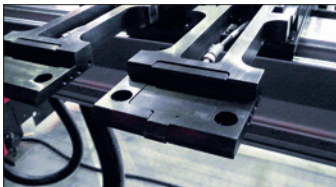
### The Delta X finger

The Delta X finger is a useful feature when bending asymmetrical workpieces.



### U-Shape finger

- Special finger shape for smart gauging of complex part shape.
- Finger position is properly calculated by AMNC 3i or VPSS 3i.



### Sensor fingers

- Eliminates gauging errors : bending process is allowed only when gauging is correctly made.
- Sensor pauses the bend process when the part is separated from the gauge.



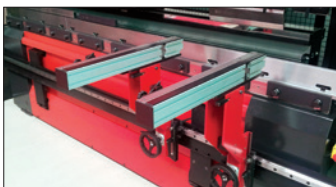
### Automatic grip for AMADA tool: AGRIP A (hydraulic) / R-GRIP (pneumatic)

- Front installation/front removal
- Automatic pull up function
- Easy to reposition and remove grips
- Space between grips can be eliminated



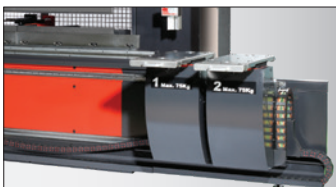
### Automatic hydraulic grip

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



### Front support

Front workpiece support



### Sheet follower

- Improves accuracy and safety.
- Assists operator for handling of large and heavy parts.
- Eliminates the need for a second operator.

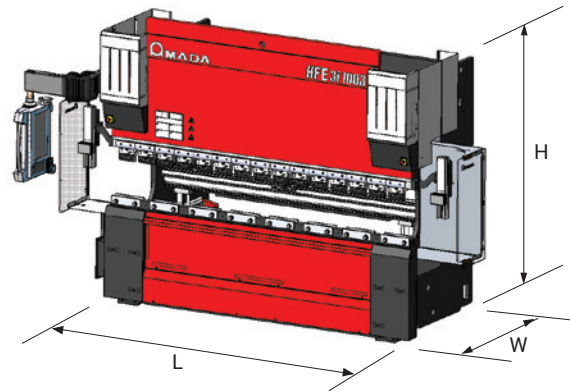


### AKAS V

The latest AKAS security system solution (AKAS V) offers the highest level of safety with an increased performance due to easier set-up.

## DIMENSIONS

Unit : mm



HFE3i		5012	5020	8025	1003	1303	1703	1704	1745	2203	2204
Total length (L)*	mm	2653	3575	4035	4615	4620	4650	5710	6000	4650	5740
Total width (W)**	mm	2267	2660	2660	2660	2700	2763	2700	2700	2763	2700
Total height (H)	mm	2420	2440	2540	2680	2805	2880	2890	3000	3185	3080
Machine mass	kg	3550	4700	5600	6600	8150	11600	13900	14800	13750	17000

\*Total length is intended with the arm and the NC maximum extended on the exterior, and all doors closed.

\*\*Total width is intended with the arm and the NC maximum extended in front, and all doors closed.

## MACHINE SPECIFICATIONS

HFE3i		5012	5020	8025	1003	1303	1703	1704	1745	2203	2204
Capacity	kN	500		800	1000	1300	1700		1700	2200	
Beam length	mm	1270	2090	2570	3110	3140	3170	4230	4520	3220	4280
Table width	mm	60				90	180				
Distance between frame	mm	1035	1665	2125	2705	2700		3760	4050	2700	3760
Throat depth	mm	100	420								
Open height	mm	480	470 (620)*								
Stroke	mm	150	200 (350)*								
Working height	mm	920**	960								
Oil capacity	liter	85	55	95	110	100	160				
Power consumption***	kW	5.5	4	7.5		11	15		18.5		
Approach speed	mm/s	220	200			100					
Maximum bending speed	mm/s	25****	15****			10					
Return speed	mm/s	220	150			100					

\*(Long Stroke)

\*\*without die holder

\*\*\*hydraulic pump only

\*\*\*\*depending on V-size and applied force

Note: HFE3i-5012 has different functions/options compare to other models. For further details please contact your sales subsidiary. For high tonnage HFE3i models, please contact your AMADA representative or refer to specific documentation.

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 machine described in this catalogue is HFE3i. 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.

### AMADA UK LTD.

Spennells Valley Road,  
Kidderminster,  
Worcestershire DY10 1XS  
United Kingdom  
Tel: +44 (0)1562 749500  
Fax: +44 (0)1562 749510  
www.amada.co.uk

### AMADA SA

Paris Nord II  
96, avenue de la Pyramide  
93290 Tremblay en France  
France  
Tél : +33 (0)1 49 90 30 00  
Fax : +33 (0)1 49 90 31 99  
www.amada.fr

### AMADA GmbH

AMADA Allee 1  
42781 Haan  
Germany  
Tel: +49 (0)2104 2126-0  
Fax: +49 (0)2104 2126-999  
www.amada.de

### AMADA ITALIA S.r.l.

Via AMADA I., 1/3  
29010 Pontenure  
(Piacenza)  
Italia  
Tel: +39 (0)523 872111  
Fax: +39 (0)523 872101  
www.amada.it

