



# SOLUTION

## **HFE 3i** SERIES

ADVANCED BENDING SOLUTION WITH 3D CONTROL



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## ADVANCED BENDING SOLUTION WITH 3D CONTROL

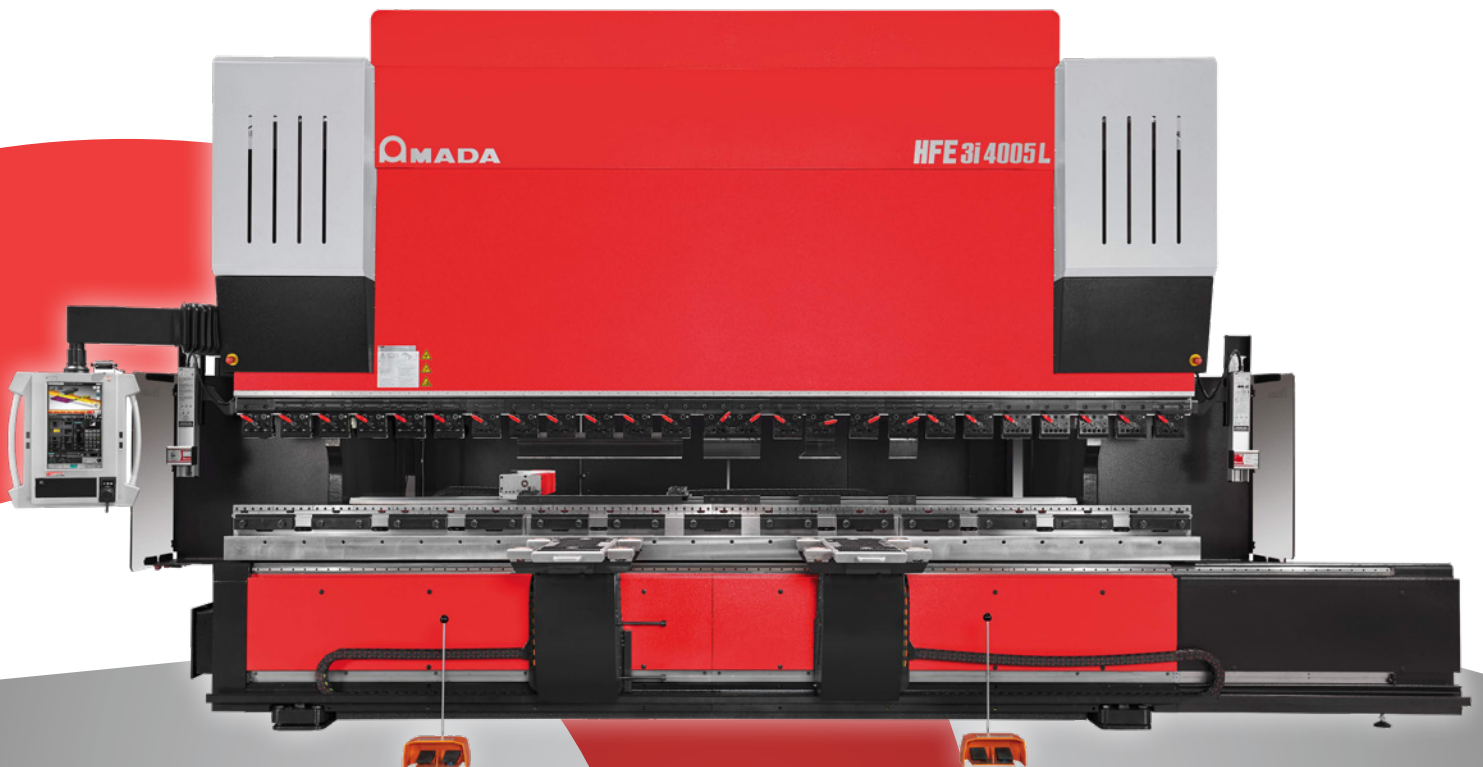
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### COMPLETE RANGE TO COVER ALL OF YOUR BENDING NEEDS

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.

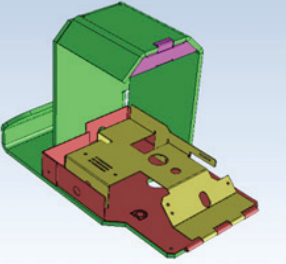
An 18.5" multi-touch display offers multiple modes of data entry (angle, depth, 2D and 3D) for ultimate programming flexibility.

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



Photograph may include optional equipment

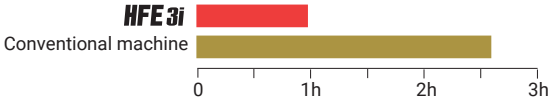
# TYPICAL PROCESSING SAMPLES



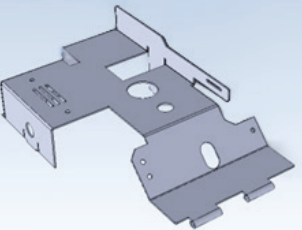
Mild steel  
0.8 mm, 1.0 mm, 5.0 mm  
240 x 142 x 172 mm

**PRODUCTIVITY COMPARISON WITH A CONVENTIONAL MACHINE**

**62% TIME REDUCTION**



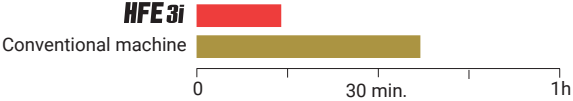
Machine	Time
HFE 3i	~1h
Conventional machine	~2.5h



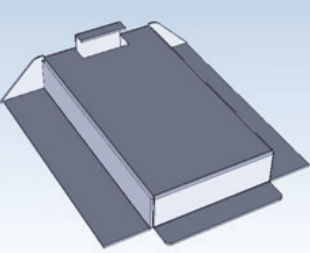
Mild steel 1.0 mm  
189 x 99 x 50 mm

**TIME SAVING FROM BI-S USAGE**

**62% TIME REDUCTION**



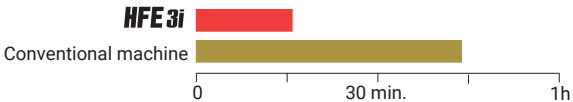
Machine	Time
HFE 3i	~15 min
Conventional machine	~45 min



Mild steel 0.8 mm  
99 x 86 x 22 mm

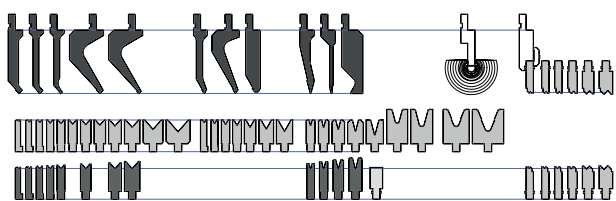
**TIME SAVING FROM COINING MODE USAGE**

**64% TIME REDUCTION**



Machine	Time
HFE 3i	~15 min
Conventional machine	~45 min

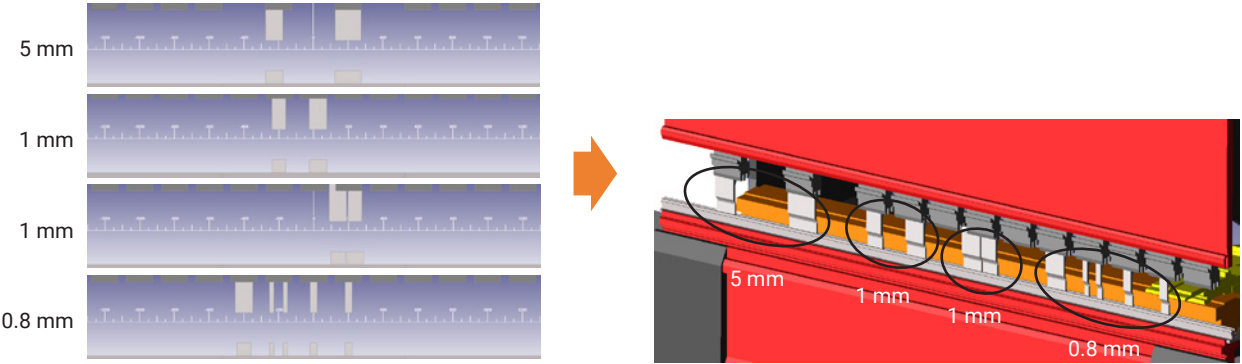
## BENDING TOOLS



### AFH & STAGED BEND TOOL

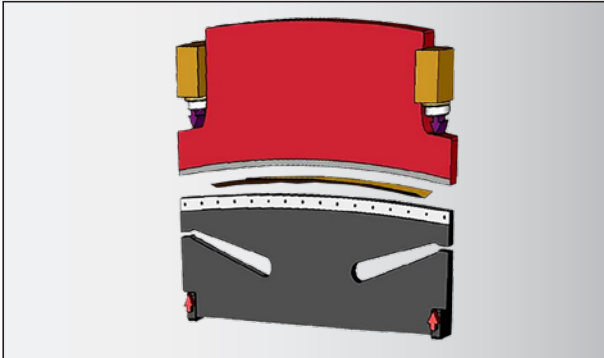
AMADA Fixed Height and Staged Bending tools are the best solution to minimise set-up operations.

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



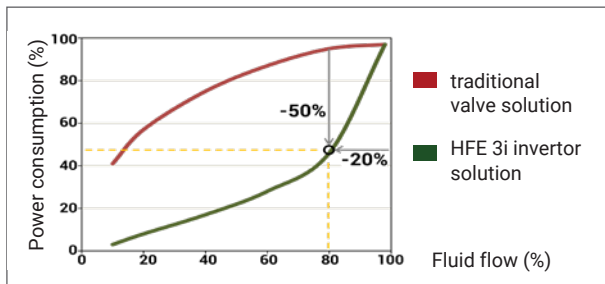
**PREVIOUS**      **NOW**

## 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.

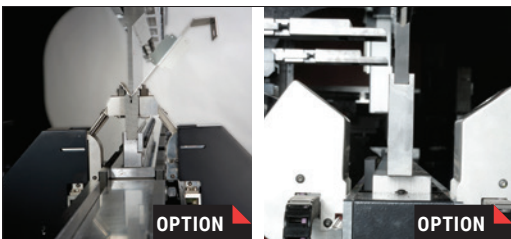
## ANGLE CONTROL AND ANGLE MEASURING SYSTEMS



### 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.



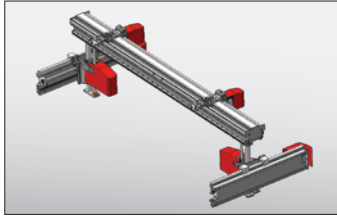
### Bi-S & Bi-M

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.

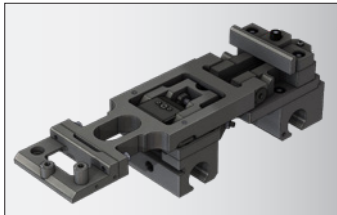
# HFE 3i SERIES

## STANDARD EQUIPMENT AND FUNCTIONS



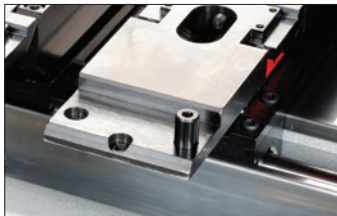
### New back gauge system

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)



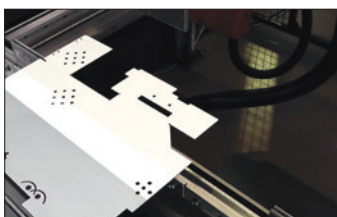
### Hand wheel

- 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



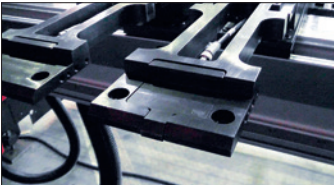
### The Delta X finger

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



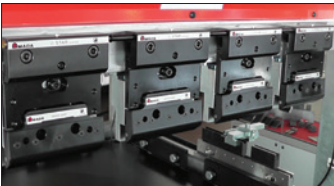
### U-Shape finger

- 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.



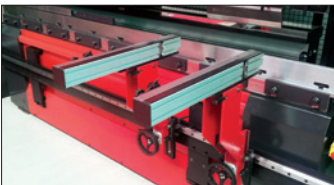
### Automatic grip for AMADA tool: AGRIP A (hydraulic) / R-GRIP (pneumatic)

- 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.

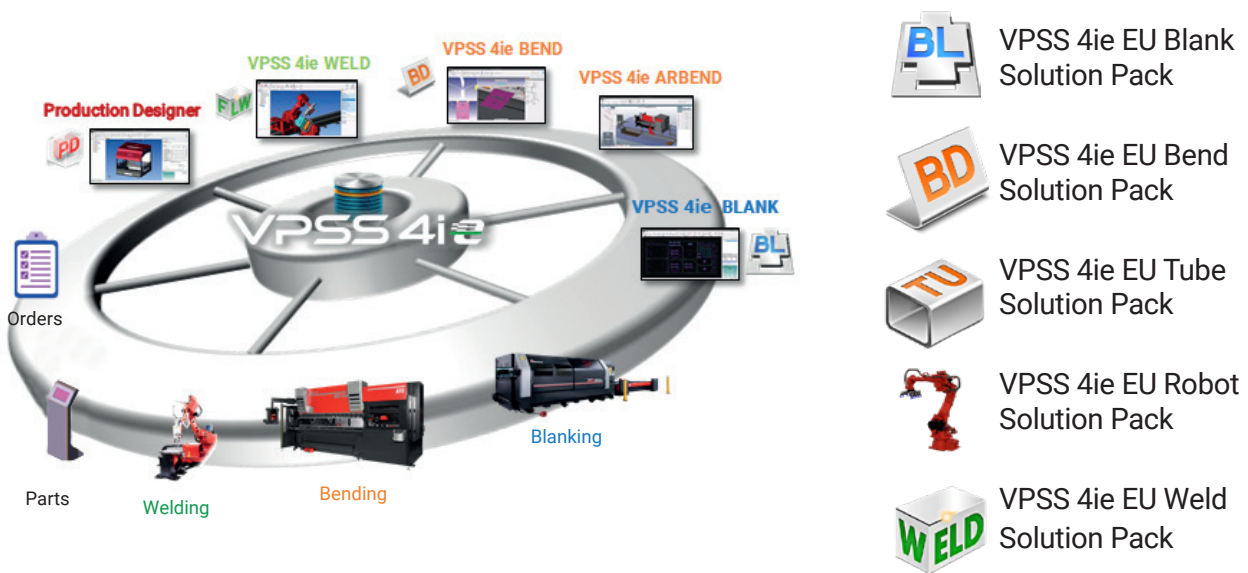
# SOFTWARE

# VPSS 4ie

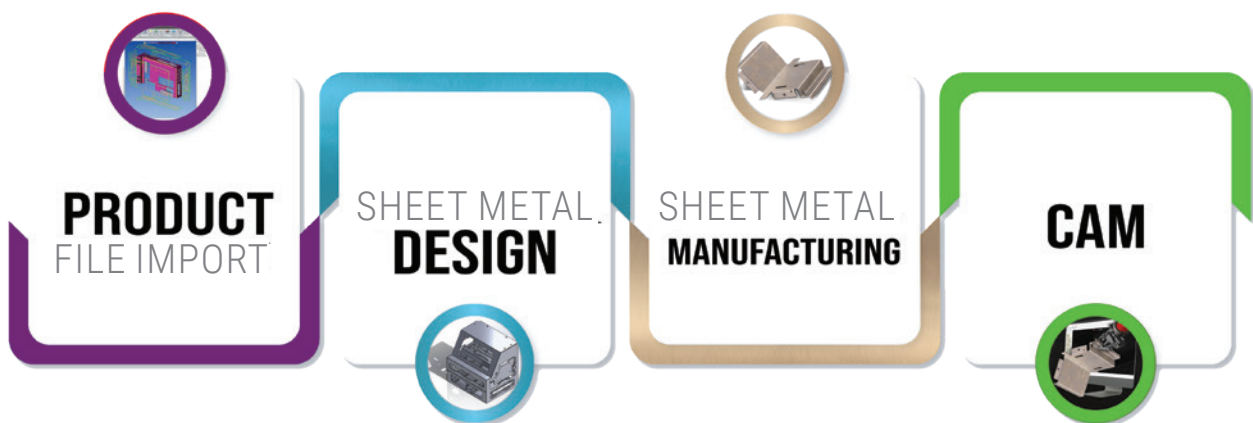
## ADVANCED SHEET METAL ENGINEERING SYSTEM

AMADA strongly believes that innovative software is the core of productive sheet metal processing. With decades of experience in the sheet metal industry and by working together with our customers, we have developed easy to use software solutions designed to meet the industry requirements. AMADA software solutions increase customer productivity through integrated development with AMADA machines and an emphasis on virtual prototyping and simulation systems.

Our VPSS 4ie CAD/CAM software helps you virtually simulate the production process, identify potential issues and make adjustments before manufacturing. With our solutions, you can maximise quality and increase efficiency whilst minimising waste. The fully automated and optimised software can also be used by less experienced operators.

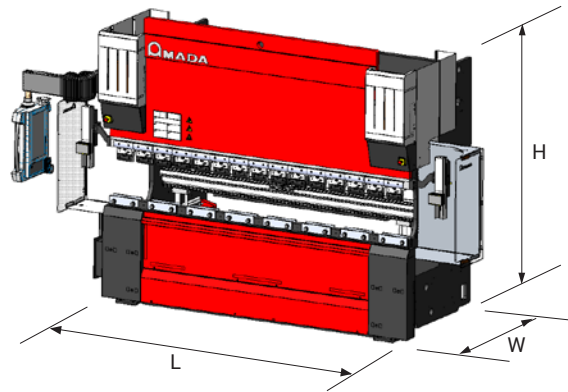


### VPSS 4ie Suite, from design to production-ready in four simple steps



## DIMENSIONS

Unit : mm



HFE3i		5012	8025	1303	1703	1704	1745	2203	2204
Total length (L)*	mm	2653	4035	4620	4650	5710	6000	4650	5740
Total width (W)**	mm	2267	2660	2700	2763	2700	2700	2763	2700
Total height (H)	mm	2420	2540	2805	2880	2890	3000	3185	3080
Machine mass	kg	3550	5600	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	8025	1303	1703	1704	1745	2203	2204
Capacity	kN	500	800	1300	1700		1700	2200	
Beam length	mm	1270	2570	3140	3170	4230	4520	3220	4280
Table width	mm	60		90	180				
Distance between frame	mm	1035	2125	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	95	100	160				
Power consumption**	kW	5.5	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

\*\*\*\*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.

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