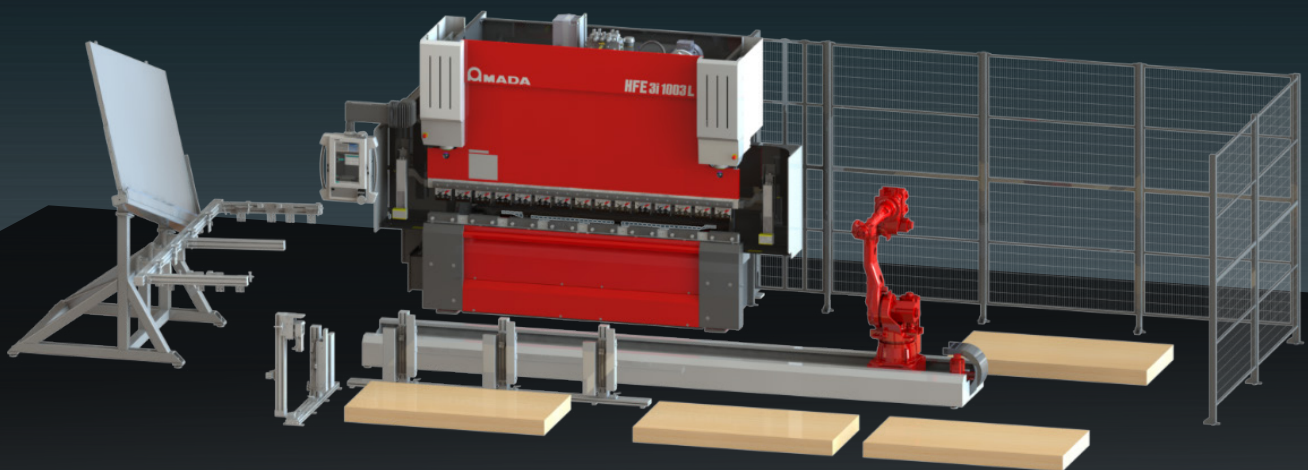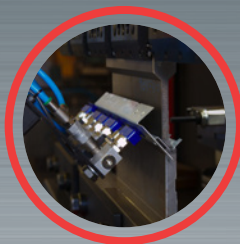# SOLUTION

ABS-R

AUTOMATIC BENDING SYSTEM - RETROFITTABLE

AMADA®

ABS-R

AUTOMATIC BENDING SYSTEM - RETROFITTABLE

HFE3i | HFE-M2 | HD-NT | HFP-NT

CONFIGURABLE AND MODULAR SOLUTION FOR AUTOMATIC BENDING PROCESS

ABS-R is a scalable and modular solution for reliability and simplicity based on a six axis robot and an auxiliary linear axis. The customized configuration is realized and specifically designed on customer's own production, being therefore able to grow with customer's needs.

It can combines different robot payload with HFE3i, HFE-M2 & HFP-NT press-brakes.

ABS-R has been designed to assure maximum flexibility and the optimization of the cycle time, thus providing maximum level performances with a competitive price.
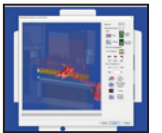
HIGH FLEXIBILITY & MODULARITY

MANUAL & ROBOT MODE

It is possible to switch from automatic operation (with robot) to the manual operation of the press brake (with operator) in a totally safe and simple way.

ABS-R BENDING SOFTWARE

The ABS-R bending software allows easy offline programming of bending sequence, tool setup and all cycle phases. The optimal robot trajectories and press brake program are generated automatically and it's possible to check the simulation. Programs are opened from robot and press brake through AMADA database.

CUSTOMIZED SOLUTIONS

ABS-R can satisfy customer's needs by developing customized solutions or adding cell devices.

It is possible to integrate optional devices/cycles:
- Automatic loading devices
- Unloading devices (e.g. conveyors, pallet changers)
- Automatic gripper changer
- Special grippers
- Custom Cycles (knotching unit, external devices, inter-layers...)

The integration with several models of press brakes (from 1.2 up to 6m), the customization of the cell layout as well as the retrofit installation with an existing press, offer a really wide range of application.

ABS-R SYSTEM CONFIGURATION

ROBOT & PRESS BRAKE

Different types of robot with different payload are available in combination with HFE3i, HFE-M2 and HPF-NT press brakes.
ABS-R solution can be provided as a complete new system or as a retrofit for existing Press Brake.

CENTERING STATION & REGRIPPING STATION

Centering Station conveys the part in a "reference position".
Motorized* regripping is used to allow robot gripping the part i in a different position.
*option

DOUBLE SHEET DETECTOR

It ensures the picking of a single sheet after loading phase. In case of double parts, robot can drop off parts in a specific area and start with a new cycle.
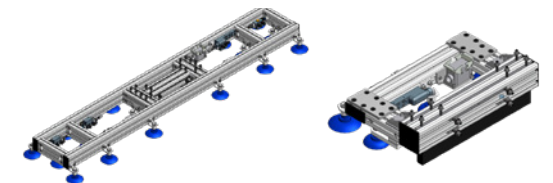
LOADING AREA

Designed for pallet loading, which can be fit with one or more stacks (maximum 6 stacks). It is equipped with magnets, air blow and brushes* for effective sheet separation.
*option

GRIPPERS

Grippers are studied according to customer's parts and specifications to allow the best and fastest handling.
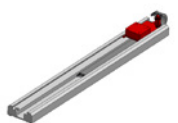
SAFETY FENCES

They can be configured with different number and type of gates according to customer's layout and specification.

AUXILIARY AXIS

Linear track's length is modular and available in steps of two meters (4m, 6m, 8m... up to 24m).

UNLOADING AREA

It's possible to manage several unloading areas (pallet, basket or other customer's devices) on the basis of production requirements.

DIMENSIONS *
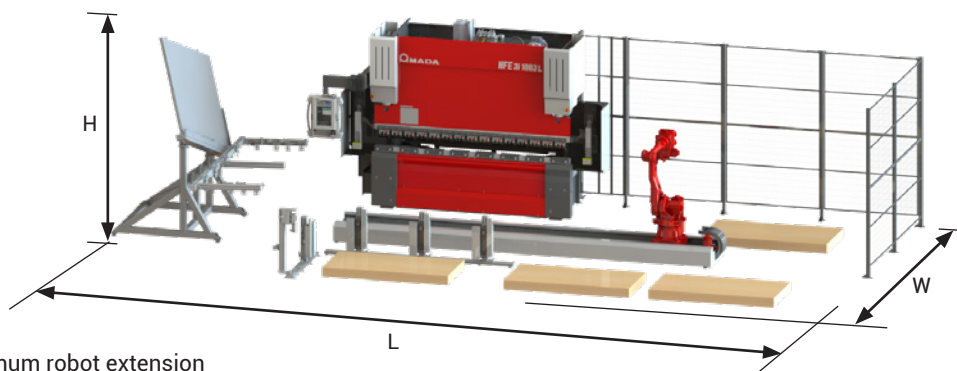
ABS-R 25
(L) 8000 X (W) 5000 X (H) 3200

ABS-R 50
(L) 11500 x (W) 7000 x (H) 3500

ABS-R 165
(L) 16500 x (W) 9500 x (H) 4000

ABS-R 200
(L) 16500 x (W) 9500 x (H) 4000

Unit : mm

*H dimension is referred to maximum robot extension

ABS-R SPECIFICATIONS

			ABS-R 25	ABS-R 50	ABS-R 165	ABS-R 200
Press brake			HFE-3i , HFE-M2, HFP-NT series			
Axes composition			6 axes + 1 travel axis			
Part specification*	Payload (including gripper)		kg	25	50	165	200
	Panel	Workpiece size	mm	750 x 750	2000 x 1000	3000 x 1500	3700 x 1500
		Max. workpiece mass	kg	4	15	35	43
	Rib	Workpiece size	mm	1400 x 100	3000 x 200	4000 x 550	4000 x 550
		Max. workpiece mass	kg	1	4	17	43
Travel axis	Stroke length		m	From 4 up to 24	From 6 up to 24	From 8 up to 24	From 8 up to 24
Loading	Number of position			Configurable, automatic loading option			
	Number of stack			Max. 6 (for each Loading area)			
	Stack height max.		mm	500			
Unloading	Number of position			Configurable depending by track length			
	Unloading method			Pallet, box, conveyor, pallet changer			

*Parts dimensions are not binding and could be increased (to be confirmed with feasibility study)

Other robot sizes are available on request

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

⚠️ For your safe use
Be sure to read the user manual carefully before use.
When using this product, appropriate personal protection equipment must be used.

The use of this product requires appropriate risk prevention measures depending on the type of work to be performed. The safety devices recommended by AMADA are supplied as standard for proper use with regard to EC conformity.

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

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