

INVERTER-CONTROLLED HYDRAULIC, DOWN-ACTING PRESS BRAKE

HS Series

HS 5020, HS 8025, HS 1303, HS 1703, HS 2204



Complete range to cover all of your bending needs.

Built on the solid foundation of the HFE M2 Series, Amada's HS press brake series includes additional production-enhancing features and an innovative touchscreen NC Control. Overall design improvements result in an eco-friendly series that provide maximum performance and ease of use. Equipped with an energy saving drive — the inverter on the HS series reflects Amada's ongoing commitment to environmental protection. The new drive system uses a frequency inverter that controls the motor pump and ensures efficiency by operating only when necessary. The system continually monitors and self-regulates bending requirements — this translates to using 20% less energy, a significant reduction in maintenance requirements, less oil consumption, lower noise levels and an increase in reliability.

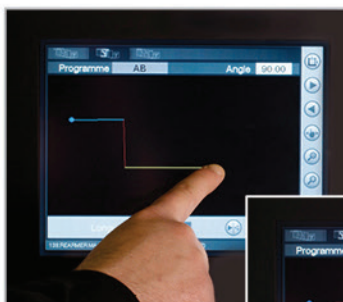


NUMERIC CONTROL (NC)

The AB PAD is equipped with an intuitive touchscreen interface. Users can also remotely monitor the operation of the machine, transfer programs and perform diagnostics.

Key Advantages:

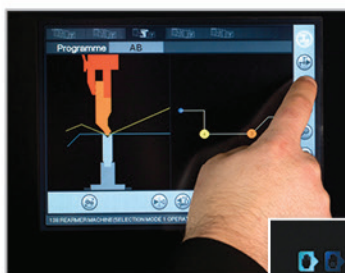
- Interactive touchscreen
- Network ready
- Automatic program creation from a 2D representation of the workpiece
- Large program, tool and material libraries
- Remote diagnostics capabilities
- Software updates via USB or internet
- The NC control is movable on three axes — adaptable to the requirements of the operator



Drawings can be made directly on the NC control by using touchscreen technology.



The operator enters the dimensions into a pop-up window. It is also possible to indicate bending priority.



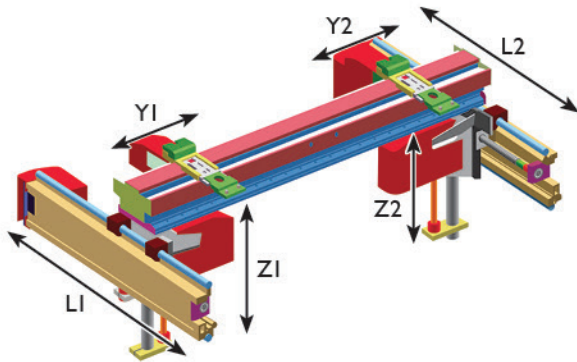
The NC control is capable of generating programs automatically. It takes into account bending constraints and ergonomics, including gauging position, component handling, bend order and required tolerances.



For special applications, manual mode programming allows the operator to create personalized programs.



MULTIPLE AXIS BACKGAUGE



The HS Series is available in two backgauge configurations:

- 2 axes: L, Z
- 6 axes: L1 L2, Y1 Y2, Z1 Z2

The light weight but rigid design allows for high speed and precise positioning. With the gauging capacity of up to 40", large components can be easily processed.

In the 6-axis version, the modules L1 L2 and Y1 Y2 are programmable independently, offering greater backgauge flexibility.

L-SHIFT BACKGAUGE (OPTIONAL)



A L-Shift function is available for the 6-axis backgauge configuration. Both gauge fingers can be set to different depth measurements. This is particularly helpful with asymmetrical workpieces.

Stroke	$\pm 3.94"$ (maximum offset 7.83")
Speed	3"/sec.
Position Accuracy	$\pm 0.004"$
Repeatability	$\pm 0.0004"$

PUNCH HOLDERS

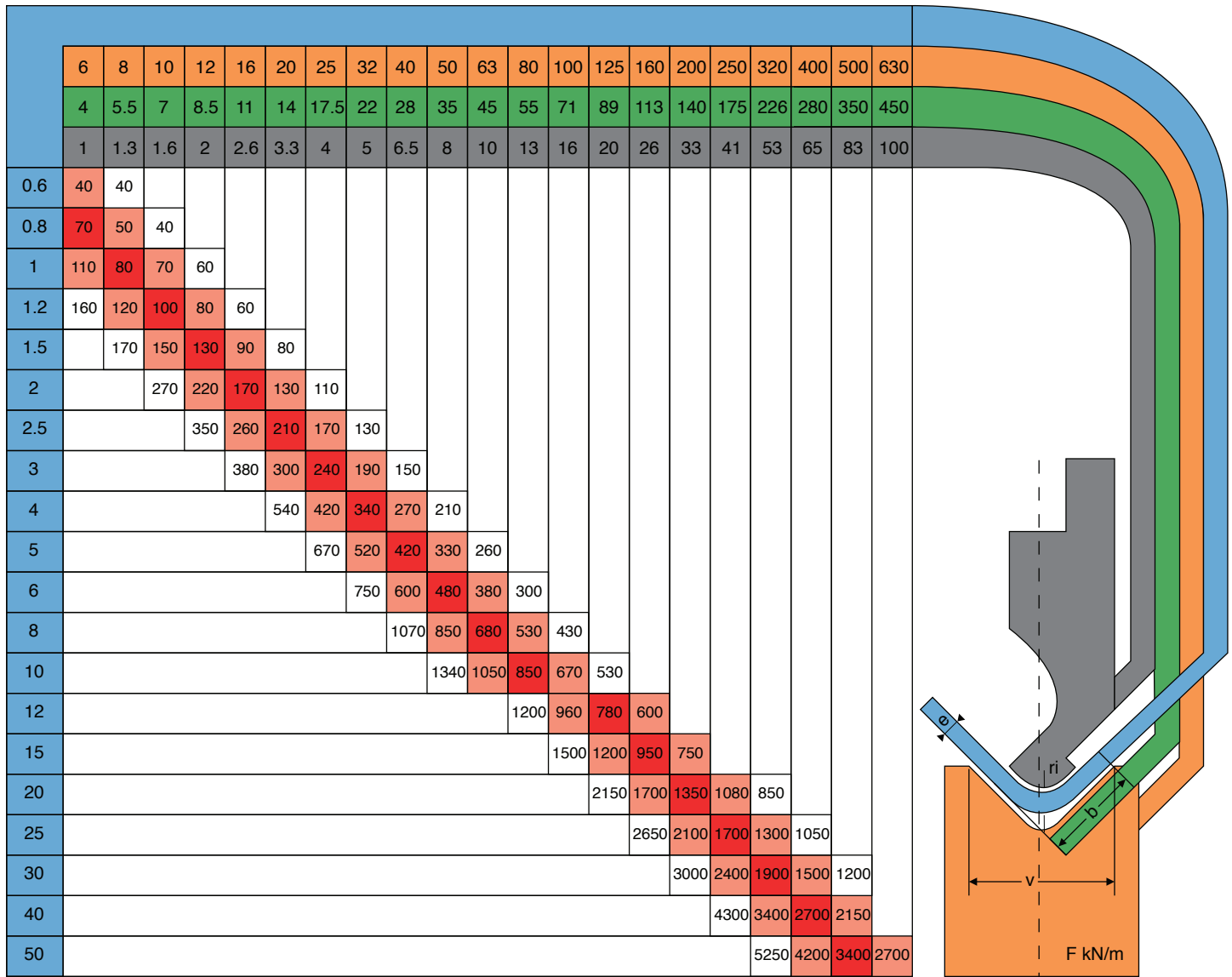


Amada's S-GRIP punch holder allows the brake operator to change punches on the press brake quickly and safely without requiring a wrench. The patented S-GRIP design dramatically decreases tool changeover time, thereby increasing bending productivity.

- No tools required to tighten punch, simply turning lever locks the punches into the holder
- An internal adjustment wedge allows for gapless punch holder positioning
- The S-GRIP works on all existing brakes, offering easy retrofit
- Proper tool tightening is ensured every time



AIR BENDING FORCE CHART



This example of an air-bending force chart is for mild-steel (40-45k/mm² tensile strength). From the material thickness it is possible to determine:

- Bending Force
- Correct V-size
- Minimum Flange Size

The ideal V-size is indicated using the red boxes. If the V-size is not available or the tonnage is out of range, it is also possible to use the sizes indicated by the clearer boxes.

To fold other materials (stainless, aluminum, etc.) a multiplication factor is used for the bending force.

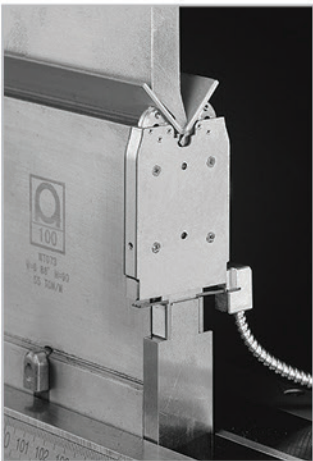
ANGLE CONTROL & ANGLE MEASURING SYSTEMS (OPTIONAL)

The bend accuracy of a press brake is affected by several factors including the deflection of the upper and lower beams. The smallest deviation in material thickness or tensile strength can have a detrimental effect on the bend angle. That's why Amada offers two different angle measuring systems to meet your specific needs.



Digipro

Digipro is a highly-accurate, electronic angle measuring device that transmits the measured angle wirelessly to the press brake's NC control via an infrared interface. The program is automatically adjusted as needed, thereby providing the precise bend angle.



BI-J

To maintain bending accuracy while processing materials that vary in type, thickness and grain direction, the HS series is equipped with BI (Bend Indicator) technology. BI technology results in trial-free bending — boosting bending repeatability while reducing QA inspection and rework.

SHEET FOLLOWER SYSTEM (OPTIONAL)

To enhance performance while improving operator safety, HS Series press brakes can be equipped with an automated sheet follower system.

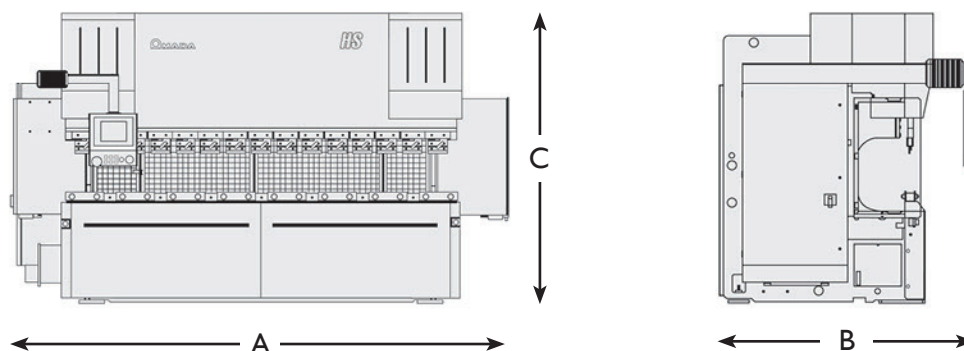


The optional automated SFI012T(L) and SFI548H sheet followers are ideal for processing heavy or large parts. Precisely managed by the NC control, this production-enhancing feature provides for greater accuracy and increased safety. Their capacity relieves the operator of difficult and arduous tasks and often eliminates the need for a second operator.

Model	SFI012T(L)	SFI548H
Compatible HS Models	8025, 1303, 1703, 2204	8025, 1303, 1703, 2204
Thickness	0.023" – 0.236"	
Worksheet Size	Min.: 11.8" x 11.8" Max.: 39.4" x 78.7"	Min.: 27.5" x 27.5" Max.: 49.2" x 98.4"
Worksheet Weight	110 lbs. (1 arm) 220 lbs. (2 arms)	231 lbs. – 331 lbs.
Drive System	Tilt/up: Inverter controlled motor (200W) with brake	Tilt/up: Hydraulic unit Table move: Air hydraulic Deep bend: 0.2kW geared motor
Pneumatic Supply	Vacuum pads ø2.36" x 3 pcs.	Vacuum pads ø3.94" x 9 pcs.
Bend Types	V up-bend (FR bend: NA)	V up-bend, down (Double deck hemming: NA)
Operation Modes	1. (Auto) NC calculated 2. (Sensor Mode) Follow up by proximity sensor	1. Deep bend 2. Pause 3. Table Move (front/rear), 4. Sensor Mode

DIMENSIONS

(Refer to the table below for individual machine measurements.)



SPECIFICATIONS

Model	HS 5020	HS 8025	HS 1303	HS 1703	HS 2204
Tonnage (US)	56	90	146	191	247
Working Length	82"	101"	122"	122"	169"
Table Width	2.36"	2.36"	3.54"	7.09"	7.09"
Working Height	38.6"	38.6"	38.6"	39.2"	39.2"
Open Height	18.5"	18.5"	18.5"	18.5"	18.5"
Stroke Length	7.87"	7.87"	7.87"	7.87"	7.87"
Throat Depth	16.5"	16.5"	16.5"	16.5"	16.5"
Distance Between Frames	65"	83"	106"	106"	148"
Oil Capacity	14.5 gal.	23.7 gal.	39.6 gal.	62.1 gal.	77.9 gal.
Total Length (A)	115"	133"	157"	158"	203"
Total Depth (B)	111"	111"	111"	119"	119"
Total Height (C)	97"	100"	104"	107"	119"
Machine Weight	10,140 lbs.	12,345 lbs.	18,077 lbs.	24,250 lbs.	39,685 lbs.
Nominal Supply Current	21 A	21 A	30 A	38 A	45 A
Power Requirement	15 kVA	15 kVA	21 kVA	27 kVA	32 kVA
Maximum Approach Speed	3.94"/sec.	3.94"/sec.	3.94"/sec.	3.94"/sec.	3.94"/sec.
Maximum Bending Speed	0.39"/sec.	0.39"/sec.	0.39"/sec.	0.39"/sec.	0.39"/sec.
Maximum Return Speed	3.94"/sec.	3.94"/sec.	3.94"/sec.	3.94"/sec.	3.94"/sec.

In the interest of technological progress, we reserve the right to make any changes to technical dimensions, construction and equipment as well as illustrations. Workpiece precision and material thickness to be processed are also dependent on production conditions, material, type of workpiece and its pretreatment.



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