

Date: March 2, 2026

Quotation #: FLMMDDYYPC-001

BAYKAL

Baykal Hydraulic Press Brake

Model APHS 3110 x 190 (211-Ton x 10'2") (5 AXIS SYSTEM)

Specification:	Inch	Metric
Bending capacity (tons)	211	190
Overall bed length	10'2"	3100 mm
Distance between housings	8'4"	2550 mm
Open Height above bed	20.8"	530 mm
Stroke length	10.2"	260 mm
Closed height	10.6"	270 mm
Operating speeds		
Advanced:	354 "/min.	150 mm/sec.
Pressing (variable):	24 "/min.	10 mm/sec.
Return:	307 "/min.	130 mm/sec.
Throat depth	18.1"	460 mm
Bed height above floor	35"	880 mm
Bed projection below floor	0"	0 mm
Motor	25 HP	18.5 KW
Oil tank capacity	55 Gallons	210 Liters
SHIPPING DIMENSIONS:	Inch	Metric
Height:	114"	2895 mm
Left to right:	151"	3830 mm
front to back:	77"	1950 mm
Weight:	22,880 lbs.	10,400 kg.

FAB-LINE Machinery LLC is proud to offer the Baykal model APHS servo press brake. The COMPACT model is offered in various standard tonnages ranging from 44 to 330 tons and in lengths from 4 to 14 feet to meet the majority of forming requirements.

The APHS is manufactured by Baykal, an ISO 9001 manufacture in an ultra modern state of the art manufacturing facility. These machines go through an extensive manufacturing process, using the latest technology. In addition, Baykal uses the highest quality material available, the frame members processed out of certified ST44-2 steel, roll straightened, and stress relieved prior to any welding. This assures our components are of the highest quality and that machined tolerances remain stable throughout the life of the machine. All the Baykal machines are machined in one handling on large bridge style CNC mills to assure exact tolerances.



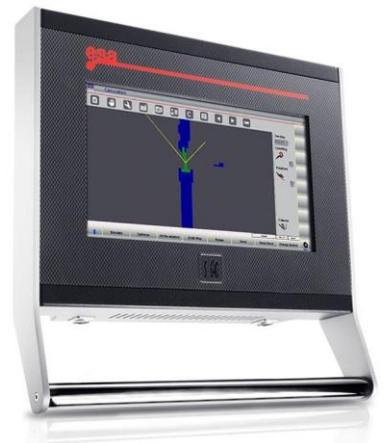
STANDARD FEATURES

- ✓ Welded, monoblock steel frame for minimum deflection under load
- ✓ Y1 / Y2 Dual cylinder down stroking machine with +/- .0004" repeatability
- ✓ One-piece forged cylinders precision machined and honed for high accuracy
- ✓ Cylinders are keyed interlocked and bolted to side frame for zero backlash
- ✓ Bed referenced, precision linear GVI Misure scales assure accurate ram position measurement with repeatability of +/- .0004"
- ✓ Cartridge valves are mounted in a single, steel manifold block to reduce heat and wear. The simplicity and reduction of pipe connections minimize leaks
- ✓ Full flow, full pressure in-line filter attached to pump ensures optimum oil cleanliness and trouble-free operation of all hydraulic components
- ✓ Electrically interlocked, swing away throat guards with space for mounting most brands of safety light guards (see options for light curtain selections)
- ✓ Electrically interlocked, rear sliding door prevents access to back area
- ✓ The standard punch holder is a universal American / European top tool holder with side-to-side adjustable wedges. American style clamping bars are available at no charge in lieu of the universal clamp
- ✓ Wired electrical box with ventilation
- ✓ Standard controller is the ESA S640
- ✓ 39-inch AC Servo driven back gauge with two heavy duty finger assemblies
- ✓ Baykal CNC crowning system
- ✓ Y1, Y2, X, R, and CNC crowning for a 5 Axis system
- ✓ Set of front support arms, mounted on a linear guide, running the entire bed length. A hand wheel driven acme screw running thru a brass nut, provides lateral adjustment. Flip stops (2) are provided for front gauging
- ✓ Dual palm buttons mounted on stand with dual foot pedals & "E" stop

ESA 640 2D CNC CONTROL SYSTEM

The ESA S 640 Touchscreen CNC servo control is a pendant mounted control that is user friendly and easily visible with its large 15" display. The fill in the blank format makes even the most inexperienced operator proficient in a matter of hours. This control is a multi-axis (up to 6 axis), 2D color display with graphical features.

Some ESA S640 key features are as follows:



- ✓ 15.6" TFT LCD display with 1366x768 WSVGA resolution, glare protection
- ✓ Automatic calculation of the bending force limitation based on the max. load capacity of the tools.
- ✓ Automatic calculation of the crowning
- ✓ Automatic calculation of the bending radius curvature for large bend radii
- ✓ Programmable workpiece counter
- ✓ Switch between inch / mm
- ✓ Windows like user interface
- ✓ Network connection / remote maintenance
- ✓ 2X RS-232
- ✓ 1X Ethernet 10/100 Mbit network connection
- ✓ 1X CANopen
- ✓ 2X USB 2.0
- ✓ Free seat of offline programming software for Windows
- ✓ Complete bending simulation

BACK GAUGE SYSTEM XR TWO AXIS

Manufactured out of heavy section, tubular steel, the APHS series of machines come equipped with an exceptional quality, XR two axis back gauge. The dual, back gauge drives are mounted directly to the side frames for rigid stability and are driven by high torque, AC servo motors. A geared belt provides a smooth, quiet transmission of power to each of the (2) two precision ball screws. A set of heavy-duty flip finger assembly's ride smoothly along the gauge bar via a precision, linear bearing. Vertical, up/down finger movement is accomplished by the CNC controller. Micro adjustment (in/out.) of each finger is also provided.

<u>Specification as follows:</u>	X Axis (CNC)	R Axis (CNC)
Range	39.3 inches	6.3 inches
Speed of travel	826"/min	567"/min
Positioning accuracy	+/- .001"	+/- .002"

RAM OF THE MACHINE

The ram of the APHS is equipped with American / European style punch holders with wedges allowing for the use of a variety of tools that are available in the marketplace. The flexibility of this type of tool holders provides you the ultimate in tool style availability. If American style clamping bars are preferred, those are available at no additional charge. Hydraulic clamping options are available as well.

BED OF THE MACHINE

The bed of the APHS is equipped with two front support arms, on linear rails. This provides the operator support during the bending operation. The bed is also equipped with a Baykal mechanical crowning device.



HYDRAULICS

The large capacity hydraulic tank is made from 5/16" thick plate (8mm). Piloted, high-capacity pre-fill valves are mounted directly to the top of each piston. When actuated, oil is drawn out the oil tank by the weight of the ram pulling down on the piston rods. This increases speed, reduces electrical consumption, and minimizes the generation of heat. Cartridge valves mounted in a single steel manifold block also reduce heat and maintenance issues. A sensor that monitors flow pressure in the cartridge type oil filter, notifies the operator when it is time to replace. This hydraulic design is for ease of service, reliability, and reducing downtime. The cylinder construction consists of Shamban style seals for increased reliability and it is important to note that all cylinders and pistons are manufactured in house to assure the most stringent tolerances.

SAFETY

Baykal press brakes conform to all current ANSI national codes. They are accredited with ISO 9001 certification and all products are CE certified. Regardless, it is the ultimate responsibility of the employer to assess the safety needs and requirements of his or her own equipment as it relates to press usage and local safety codes. (Consult your salesman for light guarding options). All APHS machines come fully equipped with a double footswitch console. This includes a footswitch, two hand control, and an emergency stop button. The machine comes equipped with electrically interlocked side and rear guards for optimum protection as well as a front and rear work light for the operator's convenience.

ELECTRICAL

The electrical box is compact and has ventilation for prevention of heat build up. All servo amplifiers, Pilz PLC, Motor controls, Fuses, Main electrical disconnect, etc., are in this spacious enclosure. The machine can be wired for 460/3/60 or 230/3/60.

PRICING

Baykal Model APHS Press Brake 3110 x 190	
Base Price	\$134,100
Bending capacity (tons)	211
Bed length	10'2"
<p>Standard features: Installation and start-up training One-year parts and labor warranty XR two axis back gauge, with two back gauge fingers ESA 640 controller One seat of offline programming software CNC crowning system Safety interlocked side and rear doors Two front support arms on linear guides</p>	
Options to consider	
Baykal CNC Crowning Device	INCLUDED
Flat filler block	\$5,100
Tooling package (EURO 4 way segmented 60mm block die and segmented gooseneck punch) for Narrow bed top	\$7,500
Wide bed top with slot and set screws	\$5,300
Multi vee lower die for wide type bed with 6 openings	\$8,100
X and R Axis back gauge	INCLUDED
Extra finger stop for X and R axis back gauge	1,400
AKAS Operator safety system (manual adjustment)	8,100

Optional back gauge specifications			
<u>Two Axis (X, R)</u>			
	Travel	Speed	Accuracy
X Axis	29.5"	826"/min.	+/- .001"
R Axis	6.3"	567"/min.	+/- .001"

Terms of Payment and Conditions

- *Payment terms: 30% deposit, 60% at shipment, 10% at installation
- *Quotation is valid for 30 days, current mfg time is 3 months
- *Prices are FOB Norfolk VA unless otherwise stated, excluding any state or local taxes
- *FAB-LINE Machinery, LLC Warranty is one (1) year parts and labor excluding any consumables (filters, tooling, holders, etc.)
- *All electrical, rigging, pneumatics if necessary, hydraulic oil, and any tooling is the responsibility of the customer
- *Customer is responsible to provide the proper flooring for all equipment purchased.
- *FAB-LINE will provide installation labor. The customer agrees to provide any labor help and using of any materials, fork trucks, cranes, or other items that may be needed to complete installation. **The Fab Line Service Dept. will provide a pre-installation check list shortly after time of order. It is the responsibility of the customer to have the items listed on the checklist completed prior to technician arrival. Installation and training timeframe is not to exceed 5 days. Additional training days can be offered as a paid visit.**
- *Manuals for the machine will be provided with the machine paper format. All these materials are to be used by the customer for operation, maintenance, parts ordering, and programming. The materials are not to be copied and provided to any third party due to the confidential information it contains.
- *FAB-LINE will have the option to obtain a purchase money security interest in the equipment that is detailed in this quotation. The buyer will execute all documents required by FAB-LINE in order to protect the security interests of FAB-LINE in accordance with the provisions of Article 9 of the Uniform Commercial Code. The buyer acknowledges that FAB-LINE may refuse to ship any equipment detailed in this quote until all the UCC documentation forms have been signed by the buyer and received at FAB-LINE
- *Prices are subject to change without notice

FAB-LINE Machinery, LLC is greatly confident that our product will provide you with the optimum performance and highest return on your investment.

Sincerely,

FAB-LINE MACHINERY, LLC

Patrick Canning

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