BB/BH SERIES
PRESSBRAKES
Bending Redefined

MC Machinery is leading the way in Press Brake technology. The Diamond series is the premiere product in our press brake line up. It features the new MOS control with enhanced industry leading functionality, but it’s much more than just a new controller. Our engineers have paid close attention to how to integrate the best electronics to enhance the bending experience. Mitsubishi Electric is a world leader in industrial electronic controls and components. Part of our mission is to provide the best products and service with unsurpassed quality and reliability.
NEW CONTROL
Easy Process Operation

Ability to see full screen simulation in real time with full zoom/tilt. Any operation can be accessed from this page.

Standard Control Features

- Ethernet
- USB
- Multi-Language Interface
- Custom Multi-User Interface
- Tool Library
- Program Folder Management
- 2D & 3D Draw Function
- 3D Part Simulation
- Multi Touch LCD Display
- 22” Display
- Machine Diagnostics
- Automatic Thickness Sensing
- User Friendly Interface
- All Axis Pulse Handle Control
- Dual Foot Pedal RAM Control
- Work Efficiency Analysis
- RAM Control
- All Axis Pulse Handle Control
- Tool Library
- Program Folder Management
- Multi-touch LCD Display
- 22” Display
- Machine Diagnostics
- Automatic Thickness Sensing
- User Friendly Interface
- All Axis Pulse Handle Control

30% Improvement in response time than previous models
Improved CAD/CAM
Whether your programming off line or at the press brake, the operator has greater visibility and editing functions at the control.

Predictive Programming
Enhanced user friendly features such as predictive programming, auto tool confirmation, auto tool layout saves operator time at the control for greater productivity.

Tool Library
Complete tool library can be set up by manufacturer, common layout, set favorites, or available tooling.

Onboard Maintenance
Check everything from battery level, alarm history, trend monitors, or machine results.

Improved Operator Support
Smarter Operator Experience or Intelligent Operator Experience Redsigned UI advances the level of operator support from announcement indicators to predictive programming.
BB SERIES

- High Accuracy (±1 micron)
- Intuitive Control
- Highly reliable / High uptime
- Cost efficient operation
- World class productivity
- Ecological (all electric/oil less)
The BB Series ball screw press brake is driven by an AC servo motor and ball screw drive mechanism. It maximizes productivity with high speed ram and high precision repeatability (1 micron). This drive method is superior to all other electric/hydraulic performance and is quiet in operation. When you want the 1st part the right part let the BB bring you profit thru precision.
Ball Screw Drive Mechanism

- High-speed movement by the ball screw drive
- Stable high repeating accuracy by the ball screw drive
- Environmental performance
  (oil less and noise reduction by the reducer)

1714 SPH (Strokes Per Hour)
- More strokes per hour than competitive machines
- Fastest ram response time in its class (2.1 sec)
Back Gauge

- With up to 5-axis available, the most complex parts can be easily formed.
- High speed movement combined with high accuracy drives (+.01 mm) ensures the back gauge is positioned quickly and precisely every time for the operator.
- Low profile back gauge enables part positioning on top of the back gauge.
- Independent servo drive (FF axis) allows for bending a wide variety of part shapes (option).

All Electric

The BB Series brakes are designed with a broad spectrum of ultra-modern features, high performance requirements, accuracy you can measure and a cost efficient operation our customers have come to expect in today’s modern production machinery.

- High speed ram stroke by AC Servo motor and ball screw drive for fast approach, bending, and return speeds.
- High quality stop accuracy by AC servo motor and ball screw for unequalled ram positioning ±1 micron (±.001mm).
- Environmental performance (oil less and noise reduction by reducer).
- Single AC servo motor per ram axis provides faster cycle times resulting in more parts per hour.
BH SERIES

- Superior Accuracy (±1 micron)
- Intelligent Intuitive Control
- Highly Reliable
- Cost Efficient
- World Class Productivity
- Innovative Dual Drive system
The BH Series utilizes an innovative and leading edge Dual Drive System with improvements in productivity, extremely precise positioning accuracies, and superior energy savings over conventional as well as hybrid press brakes. This new technology allows high speed movement of the ram at 200 mm/s with remarkable accuracy and repeatability. Our proprietary technology results in greater reliability, machine uptime, reduced operational cost and ease of operation – part after part, year after year.
BH SERIES

Dual Drive Technology

- High speed ram stroke with AC servo motor and ball screw drive for extreme approach, bending, and return speeds
- High quality stop accuracy by servo hydraulic mechanism for unequalled ram positioning ±1 micron (±0.001mm)
- Ecology operation by assist device, less hydraulic oil with fewer oil changes required, and very low noise level in standby and production.
- Lowest power consumption in its class – hydraulic pump motors are on only when the ram is moving for on-demand power.

1560 SPH (Strokes Per Hour)
- More strokes per hour than competitive machines
- Fastest ram response time in its class (2.3 sec)
Multiple Axis Back Gauge

- With up to 9-axis available, the most complex parts can be easily formed.
- High speed movement combined with high accuracy drives (±.01 mm) ensures the back gauge is positioned quickly and precisely every time for the operator.
- Low profile back gauge enables part positioning on top of the back gauge.
- Independent servo drives for “Y” axis allow for tapered flanges.
- Dual servo drive (FF axis) allows for bending a wide variety of part shapes (option).

Micro Wedge Crowning System

Automatic crowning adjustment is made quickly for each bending step without the need for operator input. Simple and fine adjustments by the operator at the touch of a finger without stress or confusion.

- Hydraulic assisted crowning bed design automatically provides consistent angular accuracy.
- Combining the angular accuracy from the crowning system with Automatic thickness detection through PSP and CP detection angular irregularities are minimized due to material thickness and off center bending.
- Easily program complete work flow in one handling through staged tool setups anywhere along the bed.
OPTIONS

Available for all BB and BH Models
- Small Punch Holder
- Interlocked Side Gate
- Touch Sensor
- Angle Measurement
- Universal Punch Holder
- FF Axis
- Open Height Increase
- Sheet Support
- Safety Device
- Moveable Foot Pedal
  *Available for all BH models, but ONLY the BB 6020

Available for BB Models Only
- Front Support Table

Available for BH Models Only
- Tandem Foot Pedal
- Sheet Follower

Additional Options
- Clamp Spacer
- Punch Holder Extension
- Remote pulse handle
- Bar Code Reader
- Finger Tip Styles (Flat tip, Step Tip, Magnetic Tip, Crab Claw, Touch Sensor)
## SPECIFICATIONS

### BB SPECIFICATIONS

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Diamond Bend Offline Software

“Know Before You Bend”

- Know You Have a Workable Design
- Know You Have the Accurate Flat Blank
- Know You Have the Tools for the Job
- Know You Have a Good Program and Setup

Eliminate Wasted Production Time from trial and error programming on the machine.
DiamondBEND offline Press Brake CAM provides the ability to program and fully simulate the bending process before parts are laser cut and formed.

Key Features

- Automatic Tool Selection and Bend Sequencing
- Full Collision and Tonnage Checking
- Easy Editing of Bend Sequence and Machine/Tool Setup
- Utilize all Press Brake Tool Styles and Suppliers
- Build and Share an Accurate Bend Database
- Interfaces with SolidWorks, Inventor and SpaceClaim CAD Systems
- Fully Integrated with New Murata Press Brakes

Get Up To Speed

DiamondBEND is designed to be easy to learn and use, featuring a modern Game Style User Interface. This clear and uncluttered interface makes it easy to program and follow the bending process.

Verify Your Design

DiamondBEND allows engineers and CAD operators to make a quick Go/No Go Bending Check to assure that their design is manufacturable with your tools and equipment.
DiamondBEND provides a comprehensive set of tools for creating and maintaining an accurate bend database. Build your bending information based on sound real-life bending experience. The database can be shared with your CAD system and Murata press brake controls for consistency and ease of maintenance.

Organize Your Tooling

With DiamondBEND you can work with any tool supplier. We supply the standard online catalogs, you build your exact inventories. You can also design standard tools or import CAD geometry for special shapes. Use supplier's Catalogs to analyze new tools before purchasing.

Verify Your program

DiamondBEND allows for the full simulation of bend operations before parts are sent to your press brakes. Any collisions, tooling shortages and over-tonnage conditions are detected offline avoiding mistakes and lost production on the shop floor. Tooling setup information can be viewed on the machine control or with paper reports.

DiamondBEND is part of the Mitsubishi Factory Network

Plug in and take control of your Bending Operation

- Optional Features for Monitoring, Scheduling and Controlling Production From Your Desktop
- Integrate and Coordinate with Upstream/Downstream Operations
- Optimize Machine Loading and Work Flow
- Customized Shop Floor Documents Printed On-The-Fly
Simple, Fast & Easy
Being a fellow Mitsubishi Corporation company, MAC Funding is an integral part of MC Machinery Systems. We work closely with MC Machinery to ensure every transaction is fast and simple, saving you time, effort, and most importantly money.

Fast Track
For loans up to $350,000, a signed loan application is all we need! The easy, one page application allows you to be approved within 24 hours. We also offer pre-approvals, allowing you to have your financing in place before you even decide on a machine!

630-860-4218 • info@macfunding.com
THE INDUSTRY’S MOST RESPONSIVE SERVICE AND SUPPORT

With more than 200 employees, our regionalized Service Network is the most advanced and responsive team in the industry. We’re here for you with phone support, operation training, on-site service, parts inventory and a robust, interactive website. With 20 locations throughout North America, and more scheduled to open, we can respond promptly to your service needs. For the best on-site customer service capabilities, we have more than 25 vans in the field – three times more than any other company in the industry.

From installation and on-site training to support and service throughout the life of your system, our national service network is just a phone call away. No other company has a greater depth of experience and resources than Mitsubishi and MC Machinery Systems. Access 24/7 support with our interactive website, a detailed interactive parts catalog, printable machine manuals and software.
ABOUT MC MACHINERY SYSTEMS

MC Machinery Systems customers get the best of both worlds: A single source for a diverse arsenal of manufacturing technologies and our expansive and knowledgeable support network. Our expertise spans virtually every aspect of metalworking—from simple fabrication to CNC-driven, automated manufacturing cells.
MITSUBISHI CORPORATION

As part of the global Mitsubishi Corporation, MC Machinery Systems draws from an extensive global source of support and innovation. Mitsubishi Corporation employs more than 60,000 people around the world, across a wide spectrum of industries including machine tools and controls, automotive, aerospace, industrial machinery, elevator, energy, metals, chemical, food and textile. This diversity, strength and stability trickle down to MC Machinery Systems customers—who benefit from Mitsubishi’s massive global R&D efforts and widespread knowledge base.

To learn more about Mitsubishi Corporation, visit www.mitsubishicorp.com.

APPLICATION SUPPORT

The value of our support stretches well beyond service, parts, and training. Our smart, experienced and creative team members put their knowledge and problem solving skills to work for you—offering application and engineering support that goes above and beyond what most suppliers can provide.

Having the widest range of manufacturing technology and expertise gives us the ability to create specialized shop-floor setups that work harder and get better results. Whether developing integrated manufacturing cells from the ground up, or adding specific solutions to complement existing operations, our pre-sales, sales, installation and application support staff can help you eliminate bottlenecks, improve accuracy and drive throughput.
All machines in this brochure may be pictured with optional equipment.