



## MASTEEL CNC HYDRAULIC BRAKES

**MBHSA-20190**

List Price:

Max. Capacity Tons	190
Max. Bending Length	20'
Distance between Frames	198"
Height of Bed	36"
Bed Below Floor	—
Depth of Throat	12 – ¾"
Length of Ram Stroke	8"
Fast Approach Speed IPM	237
Press Speed IPM	25
Fast Return Speed IPM	245
Max. Open Height	14-1/6"
Main Motor	20
Back gauge Travel	28"
Weight Lbs	49,800
Dimensions L x W x H	250x 60x108



### STANDARD CONTROL FEATURES:

- ▣ **Standard SIEMENS TP-700 control with 6" Touch Screen display**
- ▣ **SIEMENS Two Axis CNC controls on back gauge and ram bending position**
  - Bosch-Rexroth Closed-loop proportional Hydraulic position control:
    - repeatability standard at  $\pm 0.0006"$ , optional at  $\pm 0.0004"$
  - Backgauge position control:
    - Standard CNC backgauge: speed at 200 IPM as per Demo Video; repeatability at  $\pm 0.003"$
    - Programmable backgauge retract feature
- ▣ **CNC bending angle control –Only inputs of bending angle, material thickness & die opening**
- ▣ **Two-way bending calibration controls** -allow inexperienced operator to achieve desired angles with no time consuming multiple test bends. Save on costly skilled labour and test bend material.
  - By correction of test-bending angle, control system automatically sets itself to achieve desired angle.
  - By correction of bending position calculated automatically by control system.
- ▣ **Dual ram position feedbacks with hydraulic Synchronized control compensates for uneven force on the bend**
- ▣ **Tool memory for quick recall of tool setup**
- ▣ **200 Job memory with average of 30 bends in each program**
- ▣ **Programmable pressure control**
- ▣ **Programmable ram delay control at bending position under adjustable pressure for bump bending or special heavy bending application**

- ▣ Maintenance plan auto-prompts service schedule
- ▣ Operating hour meter
- ▣ Operating prompts and Trouble shooting messages
- ▣ Inch / MM conversion

### OPERATING FUNCTION:

- ▣ **Ram speed control:**
  - Rapid approach and return speeds insure more efficient production.
  - Slow bending speed for better control of bending accuracy
- ▣ **Ram stroke control:**
  - Programmable ram top stop limit for more efficient production
  - Programmable slow working speed position and second stop position
- ▣ **Four Operating Modes:**
  - Jog mode: inching control of ram for tool setup
  - Single mode: one full bend cycle per control input.
  - Double stop mode: excellent for sight bend operations.
  - Follow bend mode: easy to follow bending and ram return on large sheet or with crane handling

### QUALITY & VALUE STANDARD EQUIPMENT:

- ▣ Two axis back gauge
  - One axis Siemens CNC control: X – axis
  - One axis manual adjustment: R – axis
  - Precision-made backgauge fingers can be easily & accurately positioned along gauge bar
- ▣ Compact SIEMENS control system provides hydraulic, electrical and CNC control in one for best reliable performance.
- ▣ Push button rapid and fine adjustments on backgauge and bending position.
- ▣ Fully equipped with Masteel tooling and clamping system.
  - Floating-adjustable die clamping system for various die application
  - Hardened and precision ground tool steel gooseneck punch: 53-58RC; 100Ton/M(33Ton/Ft) capacity
  - Hardened and precision ground Masteel 10 openings, 4-way die: HB190-260.
- ▣ Masteel Crown Device for easy-adjusting tooling and machine wear intolerances with no cost
- ▣ Deep throat depth with swing up clearance allows full length bend over bed up to 12"
- ▣ T- slotted bed for support arms or custom setups
- ▣ 2 - Front support arms
- ▣ Standard SIEMENS two-axis CNC controller
- ▣ North-American made hydraulic & electrical system
- ▣ North-American standard hydraulic fittings and hoses

### OPTIONAL EQUIPMENTS:

- ▣ KV-2004 or Delem control DA-56 or up model
- ▣ Offline program software for KV-2004 or Delem control
- ▣ Servo CNC back gauge with ball screw and linear guide way
- ▣ Optional multi axis control: R, Z1, Z2 up to 6 axis
- ▣ Manual WILA Anti-Deflection system,
- ▣ Safety light curtain

- ▣ Laser protection system for die area,
- ▣ Hydraulic top and bottom tool holding system,
- ▣ Quick- set front sheet support arm with linear bearing rollers,
- ▣ Hydraulic oil coolant,
- ▣ One-shot slide greasing system,
- ▣ Special throat depth (500,600 and 750 mm),
- ▣ Special top and bottom tools