

## 450 Ton Hydraulic Press Brakes

IMAGE  
NOT  
AVAILABLE

*If it says Bettenbender on the nameplate, you've got a Hydraulic Press Brake that will do the job.*

It's versatile, accurate, rugged, easy to operate and easy to maintain. That's the way Bettenbender makes its Press Brakes.

Whether you bend plastic or steel, there's a Bettenbender Hydraulic Press Brake to match your needs, ranging from the 20-ton model to the 550-ton. No matter the size, each machine features convenient operation for maximum output and ease of maintenance for maximum productivity.

Bettenbender goes the extra mile to build a Press Brake that works hard, works accurately, and stays that way for years to come.

When your name goes on the finished product, so does your reputation. We feel the same way. Compare features. Compare results. You can count on first-class American technology, rugged durability, versatility and economy when it's made by Bettenbender Manufacturing, Inc.

*Our Standard and Optional features make delivering quality easier.*

### Features

- **Simple & Flexible Controls:** Use either a convenient multi-switch control panel or a 3-position fully guarded foot switch.
- **Accuracy:** Every Bettenbender machine is thoroughly inspected and tested. Parallelism is maintained between bed and ram, or at a preset angle, by using precise automatic leveling controls. Parallelism is maintained at  $\pm 0.002$  inch in low speed. The ram bottom reversal point is controlled by precise limit switches referenced off the bed. This isolates housing deflections which can interfere with accuracy. The side situated handwheel sets the bottom limit of the ram stroke. Micrometer adjustment on the control end allows for tilting or paralleling of the ram. A bed referenced control monitors the actual distance between ram and bed, assuring repeatability independent of die wear or end plate deflection.
- **Versatility:** Bettenbender's Press Brakes have long, full tonnage stroke; adjustable length and selectable speed combinations; adjustable height for short stroke. Two-speed is standard; three-speed with infinitely adjustable low speed is optional. This option prevents sudden whip up of the work during bending operations.
- **Maintenance:** Clevis mounted cylinders eliminate cylinder binding reducing the possibility of oil leaks. Pins and bushings do not rotate under load, resulting in much less wear than competitive products.
- **Easy Hydraulic System Maintenance:** The manifold assembly saves space and makes it easy to replace many components. The convenient work height makes the job easier.
- **Convenient Settings:** Readout reads in increments of 0.001 inch allows recorded settings of closed heights.
- **Standard Components:** The control system components, micro switches, clamp-type backgauge, hydraulic fluid and filter cartridges are all standard equipment, making routine maintenance easier.
- **Flexibility:** 2-speed ram is electrically controlled. It lets you shift to a lower speed before coming into contact with sheet metal.
- **Control:** The ram stops at the point of reference and self-levels on every stroke. Main control cabinet enclosures are mounted on the side frame containing magnetic, non-reversing motor, starter and 110/120v control circuit.
- **Safety and Reliability:** The control system operates at 110/120v using a minimum of circuitry. The system operates predominantly with American made electronics and American made motors.
- **Durability:** All steel end frames, ram and bed.
- **Electrical Equipment:** Meets requirements of NFPA 79. It includes drip proof, continuous duty 45°C ambient hydraulic pump motor wired for 208-230/460v 3 phase, 60 hertz, others optional.

Meets the ANSI B11.3 standards.

- **Ram Level:** Is accomplished by two hydraulic systems. One for each cylinder, which keeps them parallel. Self-levels at bottom of each stroke even if hydraulic system is out of adjustment.

### *Proven performance.*

Bettenbender Press Brakes are engineered to handle your metal forming requirements and have proven their performance in thousands of field installations.