



BOX AND PAN BRAKE OPERATION MANUAL



 **WARNING**

Read and understand all instructions before using this tool. The operator must follow basic precautions to reduce the risk of personal injury and/or damage to the equipment.

HAZARD DEFINITIONS

Please familiarize yourself with the hazard notices found in this manual. A notice is an alert that there is a possibility of property damage, injury or loss of life if certain instructions are not followed.

DANGER! This notice indicates an immediate and specific hazard that will result in severe personal injury or loss of life if the proper precautions are not taken.

WARNING! This notice indicates a specific hazard or unsafe practice that could result in severe personal injury or loss of life if the proper precautions are not taken.

CAUTION! This notice indicates a potentially hazardous situation that may result in minor or moderate injury if proper practices are not taken.

NOTICE! This notice indicates that a specific hazard or unsafe practice will result in equipment or property damage, but not personal injury.

WORK AREA

1. Operate in a safe work environment, Keep your work area clean, well-lit and free of distractions. Place lights so you are not working in a shadow.
2. Keep anyone not wearing the appropriate safety equipment away from the work area.
3. Store unused tools properly in a safe and dry location to prevent rust or damage. Lock tools away and keep out of the reach of children.

Usage

1. This machine is suitable for processing carbon steel plate with a thickness of no more than 1 mm. with a width of no more than 610 mm (24") and other plate materials. Such as nonferrous metal, etc. with similar thickness.

2. TECHNICAL SPECIFICATION

Steel Capacity	20 gauge sheet metal (1mm)	20 gauge sheet metal (1mm)
Width	12" (305mm)	24" (610mm)
Working height	8-3/4" (222mm)	8-3/4" (222mm)
Angle	0-135°	0-135°

3. PERSONAL SAFETY

1. Use eye and face protection. Always wear ANSI approved impact safety goggles, which must provide both frontal and side protection. Wear a full face shield if your work creates metal filings.
2. Do not over reach, keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
3. Dress properly, wear protective equipment. Do not wear loose clothing or jewelry as they can be caught in moving parts. Tie back long hair.
4. Stay alert, watch what you are doing and use your common sense. Do not operate any machine or tool when you are tired, under the effect of drug, alcohol.
5. Use clamps or other practical ways to secure and support the work piece to a stable platform. Holding the work piece by hand or against your body is unstable and may lead to loss of control.

4. TOOL USE AND CARE

1. Use the right tool for the job. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. The tool will perform better and safer at the task for which it was intended.
2. Maintain tools with care. Keep tools clean, sharp and in good condition for a better and safer performance. Inspect alignment periodically and, if damaged, have them repaired by an authorized technician or replaced.

5. SPECIFIC SAFETY INSTRUCTIONS

1. Make sure the unit is securely mounted to a stable surface before operation.
2. Periodically check all pins before use. Make sure all pins are inserted all of the way in
3. Make sure Stock is of sufficient length. Stock must extend far enough past the stop block & forming die so as not to slip and cause injury.

INSTALLATION

1. Place the bending brake on a work bench which can support the weight of the unit and the stock being bent.
2. Using a pencil, mark through the holes in the body (#3) feet onto the work bench.
3. Drill 5/16" holes into the work bench for mounting bolts.
4. Secure the bending brake with 4 bolts, lock washers, and nuts (not supplied).

OPERATION

Caution! Do not attempt to bend stock thicker than 1 mm (20 gauge). Damage could occur to the bending brake.

If you are not sure of the stock thickness, try bending the stock. If it does not easily bend, either the stock is too thick, or the bending brake needs adjustment

1. Lift handle jacket (15) all the way to open the upper press assembly.
2. Insert the sheet metal to bend over the body (#3) and under the upper press assembly (4). Slide the sheet metal in and align the bend mark on the Stock to the inner lip of the bending assembly (1). In general, leave a 3mm (1/8") gap to make the bend clean. This gap will increase when bending thicker materials.
3. Press the handle jacket (5) to the locked position. This action causes the upper press assembly to clamp down on the stock. If the handle jacket does not come down all the way and lock, either the stock is greater than 20 gauge, or the bending needs to be adjusted.

Caution:

When banding, keep spectators clear of the work area.

4. Using both hands, lift up on the bending assembly (#1) with the handles until the desired angle is reached on the stock.
5. Lift the handle jacket (15) all the way up and remove the sheet metal.
6. When bending a box or a pan, choose a die or some die assembly with length close to the pan or box side length.

ADJUSTMENT

It may become necessary to adjust the position of the upper press assembly (4) or the eccentric shaft (5) to accommodate a thicker or thinner piece of sheet metal.

1. Lift handle jacket (#15) all the way.
2. Turn bolt (10) clockwise to move the upper press assembly (4) down or counterclockwise to move it up (for large stock). Count the number of turns
3. Tighten nuts (9 and 11) to secure the bolt (10) in place.
4. On the opposite side of the bending brake, repeat step 1 to step 3.
5. Adjust bolt (10) with the same number of turns. The upper press assembly (4) must be flush with the bending assembly (1) when closed
6. Turn the eccentric shaft (5) to move the upper press assembly forward or backward slightly. Do this equally to both sides
7. Make sure the Sheet metal will enter the machine comfortably. If it is too loose or too tight, re-adjust the press assembly.

MAINTENANCE

Lubricate all moving parts and surfaces weekly with a light oil. This will keep the parts moving freely, and prevent from rusting.

PART LIST

#	Description	Qty	#	Description	Qty
1	Bending assembly	1	14	Screw rod	1
2	Shaft	1	15	Handle jacket	1
3	Body	1	16	Pin shaft	2
4	Upper press	1	17	Split pin	2
5	Eccentric shaft	2	18	Screw	4
6	Connecting block	2	19	Flat key	2
7	Washer	4	20	Bushing	4
8	Screw	4	21	Small shaft	2
9	Nut	2	22	Left eccentric shaft	1
10	Bolt	2	23	T block	6
11	Nut	2	24	Bending die	5
12	Bushing	2	25	Screw	7
13	Right eccentric shaft	1			

