

Item #32601

# 48" ELECTRO-BRAKE INSTRUCTIONS



The **EASTWOOD 48" ELECTRO-BRAKE** is designed to form bends from simple angles to intricate, compound bends, hems, crimps, boxes and trays. A powerful 6 tons of electromagnetic clamping force allows a high degree of accuracy and precision. A built in angle gauge and material stop collars allows for ease of repeatability.

# **CONTENTS**

#### **COMPONENTS**

- (2) Front Legs [A]
- (2) Rear Legs (With Installed Levelers) [B]
- (1) Center Column [C]
- (1) Main Bender Unit [D]
- (1) Foot Pedal Assembly [E]
- (1) Left Side Handle with Gauge & Stop Collar [F]
- (1) Right Side Handle [G]
- (1) Sliding Angle Gauge [H]
- (2) Support Rods [J]
- (1) 52" x 2" Solid Clamp Bar [K]
- (1) 52" x 4" Solid Adjustable Clamp Bar [L]
- (1) 52" x 4" Notched Adjustable Clamp Bar [M]
- (1) Storage Tray [N]
- (1) 11" x 4" Clamp Bar [0]
- (1) 5.5" x 4" Clamp Bar [P]
- (1) 2.75" x 4" Clamp Bar [Q]
- (1) 2" x 4" Clamp Bar [R]
- (1) 1.5" x 4" Clamp Bar [S]
- (1) 1" x 4" Clamp Bar [T]

#### **TOOLS**

- (2) Reinforced Fabric Lifting Straps
- (1) 6mm Hex Key

#### **HARDWARE**

- (8) M10 x 1.5 x 16mm Rounded Socket Head Screws [U]
- (8) M8 x 1.25 x 12mm Socket Head Cap Screws [V]
- (8) M8 x 1.25 x 16mm Socket Head Cap Screws [W]

# **SPECIFICATIONS**

**Maximum Material Width:** 48" [1.22m]

Maximum Material Thickness: 16 gauge mild steel and aluminum. 20 gauge stainless steel.

**Power Cord:** 10' [3m] three conductor cable. **NOTE:** The Power Cord is not supplied with a plug. The unit may be hard-wired, or a suitable

plug may be installed. All wiring must be done by a licensed electrician, in accordance with National Electric Code and

state and local requirements.

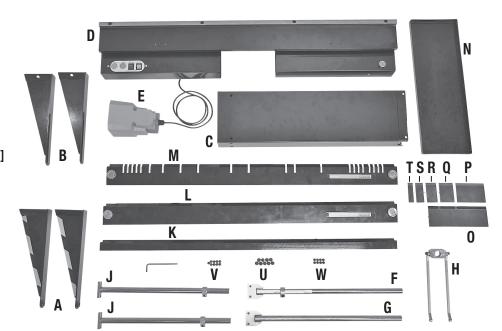
**Power Requirements:** 240 Volts AC, 60Hz, 12 Amps. **NOTE:** A 20 AMP minimum, grounded circuit with circuit breaker or fuse protection must

be used. For best performance, the Eastwood 48" Electro-Brake should be installed on a dedicated circuit.



# LEARN HOW TO SET UP AND USE YOUR MAGNETIC SHEET METAL BRAKE

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# **SAFETY INFORMATION**

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

#### **A** DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

#### **A** WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

#### **A** CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### **A** NOTICE

NOTICE is used to address practices not related to personal injury.

## **GENERAL SAFETY RULES**

#### **A** WARNING

Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

# **SAVE THESE INSTRUCTIONS**

#### 1) WORK AREA SAFETY

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- **b)** Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. *Power tools create sparks which may ignite the dust or fumes.*
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### 2) ELECTRICAL SAFETY

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- **b)** Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

#### 3) PERSONAL SAFETY

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- **c)** Avoid accidental starting. Ensure the switch is in the off-position before plugging in. *Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*
- **d)** Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. *Use of these devices can reduce dust-related hazards.*

#### 4) POWER TOOL USE AND CARE

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. *Power tools are dangerous in the hands of untrained users.*
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. *Many accidents are caused by poorly maintained power tools*.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. *Use of the power tool for operations different from those intended could result in a hazardous situation.*

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#### A WARNING HEAVYWEIGHT COMPONENTS!

- The Eastwood Electro-Brake has a total weight of 330lbs [150kg.]. During assembly, the Eastwood Electro-Brake MUST be lifted with
  the use of a mechanical lifting device capable of lifting 350lbs [159kg] such as an Engine Hoist, Overhead Crane or other suitable
  method only! To avoid serious injury, DO NOT attempt to lift the Electro-Brake by hand or with multiple persons.
- Use only lifting straps, chains or hooks rated for 350lbs [159kg] or greater.



#### A WARNING ELECTROMAGNETIC FIELDS CAN BE A HEALTH HAZARD!

 The electromagnetic field that is generated while operating this equipment may interfere with various electrical and electronic devices such as cardiac pacemakers. Anyone using such devices should consult with their physician prior to use. Exposure to electromagnetic fields may have other health effects which are not known.



#### A WARNING CRUSH HAZARD!

Keep hands, feet and other body parts away from under the Electro-Brake during assembly. Keep children, pets and unauthorized
persons away from the work area during assembly.



#### A WARNING PINCH AND CRUSH HAZARD!

• The Eastwood Electro-Brake consists of moving metal components which can present a hand/finger pinch hazard. Avoid pinching hands while handling and keep fingers and hands away from moving parts when operating.



#### A WARNING CUT HAZARD!

• Handling sharp metal can cause serious cuts. Wear thick, well-fitting work gloves to prevent cuts from handling sharp metal.



#### A WARNING EYE INJURY HAZARD!

Metal particles can be ejected from the metal surface when forming. Sheet metal edges and corners are sharp and can injure eyes.
 Always wear ANSI approved eye protection when operating this tool.



#### A WARNING INJURY HAZARD!

- Strenuous physical force may need to be applied to the Eastwood Electro-Brake during use. Failure to ensure proper footing can quickly result in a fall which could inflict serious personal injury or property damage. Always work in a clean, uncluttered environment.
- Be sure there is sufficient working room around the tool to allow for safe handling of various sizes of metal.



#### **A** CAUTION

 The Eastwood Electro-Brake was specifically designed to be operated by one person only. Never have one person operate the Bender while another handles the workpiece or serious injury could occur.

#### **A** NOTICE

Excessive resistance while operating could indicate a defect with the workpiece material or broken or damaged Electro-Brake
components. To avoid injury, stop work immediately and inspect workpiece material for nicks, dents, welds, excessive scale or
remaining coatings. Clean or repair as necessary or discard and begin with a new piece. Also inspect the Electro-Brake
components for looseness or damage.

### **ASSEMBLY**

#### MAIN ASSEMBLY; [D] TO [A], [B] & [C]

- 1. Note that there are two Front Legs [A] with yellow & black Safety Stripes and two Rear Legs with Leveling Bolts [A].
- 2. Lie the Center Column [C] on its back. NOTE: The Center Column [C] has specific front and rear faces. The top edge with the doubled steel reinforcement strip is the Front (FIG 1).
- Mount the two Front Legs [A] to the Center Column [C] using four M10 x 1.5 x 16mm Rounded Socket Head Screws [U] (FIGS 2 & 3). Tighten securely with the Included 6mm Hex Key.
- 4. Flip the Center Column over and mount the two Rear Legs [B] to the Center Column [C] using four M10 x 1.5 x 16mm Rounded Socket Head Screws [U] (FIG 4). Tighten securely with the Included 6mm Hex Key.
- 5. Set the assembled base upright on its legs on a clean, level floor.
- 6. Secure the Front Legs to the floor using suitable fasteners.
- The Levelers on the rear lugs may require adjustment to eliminate any rocking or instability (FIG 5).

#### A WARNING HEAVYWEIGHT COMPONENTS!

The Eastwood Electro-Brake has a total weight of 330lbs [150kg.]. During assembly, the Eastwood Electro-Brake MUST be lifted with the use of a mechanical lifting device capable of lifting 350lbs [159kg] such as an Engine Hoist, Overhead Crane or other suitable method only! To avoid serious injury, DO NOT attempt to lift the Eastwood Electro-Brake by hand or with multiple persons.

Use only lifting straps, chains or hooks rated for 350lbs [159kg] or greater.



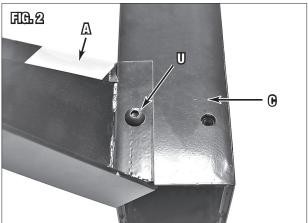
Before beginning ANY work with this tool, it is absolutely necessary that it be securely bolted to the floor. Failure to do so may result in sudden tipping causing serious personal injury.

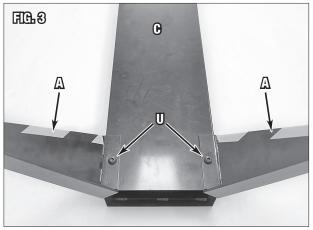
#### **A** NOTICE

The following procedure will require performing <u>two actions</u> <u>at the same time</u>. For Safety purposes, it is strongly advised to obtain the assistance of a helper while performing these following steps:











1. Grip the hinged Bending Beam at the front of the Main Unit [D] and move it up 180° to the vertical position to expose the mounting holes at the front of the Base Unit (FIG 6).

#### **A** NOTICE

When positioning the Included Lifting Straps for lifting, use extreme caution <u>not to trap the cords</u> attached to the Bender. Doing so will severely damage them.

2. Using the Included, pre-installed Lifting Straps and with a hoist, lift the Main Unit [D] of the Bender [D] so that the top surface is 36" [0.91m] above the floor (FIG 7).

#### **A** CAUTION

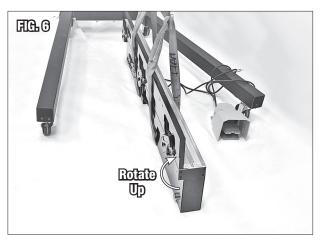
#### DO NOT RELEASE THE WEIGHT FROM THE HOIST AT THIS TIME!

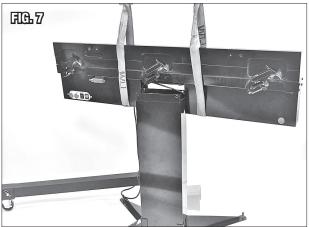
- 3. Carefully and slightly lower the center of the Main Unit [D] into the cut-out top of the Center Column [C] while simultaneously keeping the wire at the underside of the Main Unit from being pinched and align the mounting holes with the threaded holes in the Center Column [C] (FIG 7).
- From the front, thread in two of the M8 x 1.25 x 16mm Socket Head Cap Screws
   [W] into the holes and tighten them securely with the Included 6mm Hex Key
   (FIG 8).
- From the rear, thread in two of the M8 x 1.25 x 12mm Socket Head Cap Screws [V] into the holes and tighten them securely with the Included 6mm Hex Key (FIG 9).
- **6.** At this time, the weight may safely be released from the Hoist and the Lifting Straps can be removed.
- The assembly can be continued with the attachment of the peripheral components.

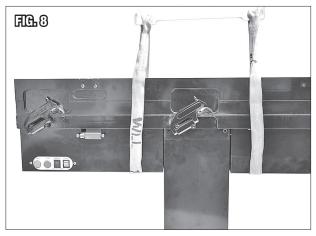


240 Volts AC, 60Hz, 12 Amps.

**NOTE:** A 20 AMP minimum, grounded circuit with circuit breaker or fuse protection must be used. The Power Cord is not supplied with a plug. The unit may be hard-wired, or a suitable plug may be installed. All wiring must be done by a licensed electrician, in accordance with National Electric Code and state and local requirements. For best performance, the Eastwood 48" Electro-Brake should be installed on a dedicated circuit.



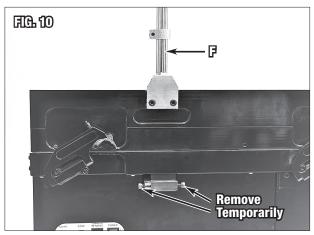


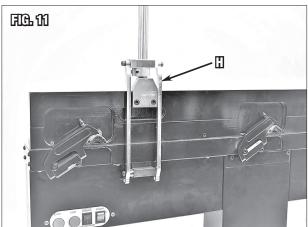




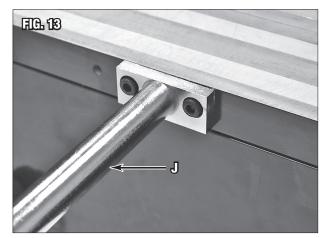
# PERIPHERAL ASSEMBLY; [E], [F], [G], [H] & [M]

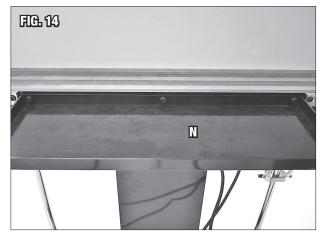
- With the hinged Bending Beam still rotated up to 180° vertical, place the Left Side Handle with Gauge & Stop Collar [F] with the mounting flange holes aligned with the tapped holes in the front of the Base and secure with two M8 x 1.25 x 16mm Socket Head Cap Screws [W] and tighten with the Included 6mm Hex Key (FIG 10).
- 2. Place the Right Side Handle [G] with the mounting flange holes aligned with the tapped holes in the front of the Base and secure with two M8 x 1.25 x 16mm Socket Head Cap Screws [W] and tighten with the Included 6mm Hex Key.
- 3. Remove the two, pre-installed M8 Socket Head Cap Screws from the Gauge Anchor Block at the left front of the Main Unit and set them aside momentarily (FIG 10).
- 4. With the Left handle pulled upward, slip the Sliding Angle Gauge [G] over the Handle and attach the open pivots of the two Arms (with the angled bends inward) to the Gauge Anchor Block with the two previously removed M8 Socket Head Cap Screws and tighten securely with the Included 6mm Hex Key (FIGS 11 & 12).
  - **NOTE:** The Stop Collar may need to be loosened with the Included 6mm Hex Key and moved inward for clearance.
- 5. Set two Support Rods [J] with the mounting flange holes aligned with the tapped holes in the rear of the Base and secure with two each, M8 x 1.25 x 16mm Socket Head Cap Screws [W] and tighten with the Included 6mm Hex Key (FIG 13).
- **6.** Locate the Storage Tray **[N]** to the area between the two Support Rods and with the mounting flange holes aligned with the tapped holes in the rear of the Base, secure with three M8 x 1.25 x 16mm Socket Head Cap Screws **[W]** and tighten with the Included 6mm Hex Key **(FIG 14)**.
- 7. The Eastwood Electro-Brake is now ready for use.











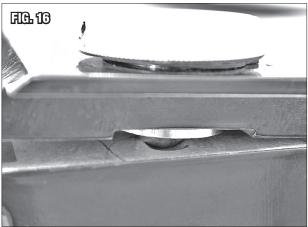
# **SET UP**

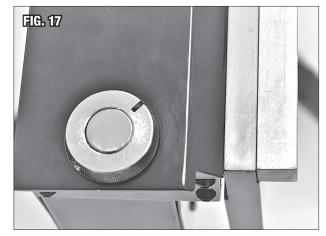
#### **CLAMPING BARS**

The Eastwood Electro-Brake has several different Clamping Bar configurations to accommodate many projects from simple angle bending to rolling, crimping and box forming. It can also be used as a precision sheet metal shearing guide when paired with a suitable metal shear.

- 52" x 2" Solid Clamp Bar [K].
  - May be used for simple angle bends.
  - The narrow, 2" profile is used in creating secondary and reverse bends
  - Useful for use in making "U" or channel shapes 2" or more in width.
  - Can be stood on straight edge for narrower "U" or channel shapes.
- 52" x 4" Solid Adjustable Clamp Bar [L].
  - May be used for simple angle bends.
  - The Adjusting Knobs on the outer ends of the Clamp Bar feature eccentrics based on locating balls on the underside of the Clamp Bar that are nested into depressions on the top of the Base Deck (FIGS 15 & 16). The Knobs are rotated to move the Bar closer and further from the Bending Beam to accommodate different metal thicknesses and bend radii (FIGS 17 & 18). A proper adjustment can be achieved by adding the thickness of the selected metal to the allowable bend radius for that metal as found in a Machinery's Handbook. Use that figure to set the distance from the edge of the Base Deck to the front edge of the Clamp Bar.
  - Normally used with the angled edge outward to provide up to a 120 bend.
  - May be reversed on the Base Deck with the straight edge facing outward and combined with a section of solid round bar stock (not included) to provide a rolled bend.
- 52" x 4" Slotted Adjustable Clamp Bar [M].
  - Used identically as described in the 52" x 4" Solid Adjustable Clamp Bar except that the 22, 2" deep x 3/8" wide slots cut into the leading edge are designed to be used in conjunction with the collection of 6, different length Short Bars. [0], [P], [0], [R], [S] & [T].
- Short Clamp Bars [0], [P], [Q], [R], [S] & [T].
  - May be used alone for inside box and tray work or in combination with the 52" x 4" Slotted Adjustable Clamp Bar [M].









#### **BENDING ANGLE GAUGE**

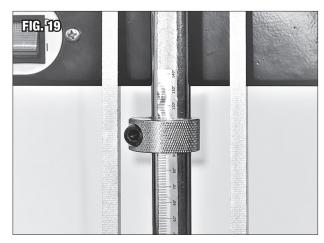
The Bending Angle Gauge is designed into the Left Handle with a Degree Scale in a flat recess of the upper face of the Handle (**FIG 19**). A maximum 140° is possible. To set:

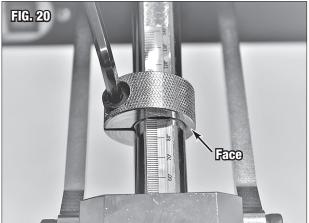
- Using the Included 6mm Hex Key, loosen the clamping screw of the Stop Collar (FIG 20).
- Slide the Stop Collar along the Gauge until the <u>Outward Face</u> of the Stop Collar
  is aligned with the desired angle marking on the Gauge (FIG 20). This will cause
  the plate on the Gauge to limit the travel of the Left Handle controlling the final
  bend angle of the workpiece.

#### SUPPORT BAR STOP COLLARS

The Support Bars include adjustable Stop Collars to act as a measured Stop Guide for repeated bends in material. A maximum 26" is possible. To Set:

- Using the Included 6mm Hex Key, loosen the clamping screw of the Stop Collars (FIG 21).
- Slide the Stop Collars along the Support Bars until the *Inward Face* of the Stop Collars are aligned with the desired stop dimension.

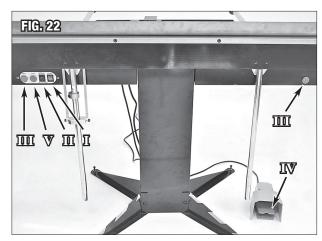


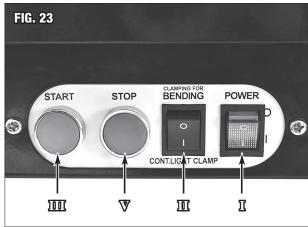




# **CONTROL PANEL (FIGS 22 & 23)**

- (I) = Power Switch
  - Switches on power to unit. Illuminates GREEN when on.
- (II) = Clamping When Bending Switch
  - If set to "O", it allows energizing of "Full Clamping Force" when (III) Start Button or (IV) Foot Pedal is operated.
  - If set to "I", it energizes "Continual Light Clamping Force" for continuous light clamping force useful when holding a panel in place during metal shearing or similar operation.
- (III) = Start Buttons
  - (2 Green Push Buttons located at far left and far right of the Front Panel).
     When the (II) = Clamping When Bending Switch is first set to "O", the Green Button is depressed to energize the full 6 ton clamping force.
- (IV) = Foot Pedal
  - (Serves the same function as the Green Push Buttons). When the (II) = Clamping When Bending Switch is first set to "0", the Foot Pedal is depressed to energize the full 6 ton clamping force.
- (V) = Stop Switch
  - Cancels the Continual Light Clamping Force that is activated when Clamping When Bending Switch is set to "I".





# **OPERATION**

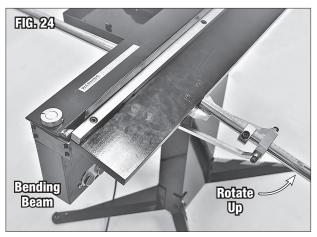
#### STANDARD, FULL FORCE BENDING

- Arrange the workpiece panel to be bent between the Base Deck of the Bender and the selected Bending Beam.
- 2. Once the Clamping Bar and panel are aligned, Switch on the (1), Power Switch then either press the Left or Right (III) Start Buttons or press the (IV) Foot Pedal. This imparts a light clamping force to hold the workpiece in place.
- 3. Grip both Handles and rotate them upward to begin the bending process (FIG 24). NOTE: As soon as the upward motion of the Handles is begun, a switch in the Handle mechanism activates the full 6 ton clamping pressure. The Start Button or Foot Pedal may be released, and clamping will continue automatically.
- **4.** Once the desired bend angle has been achieved, gently rotate both Handles backward to the neutral position.
- **5.** Moving the Handles backward more than 15° automatically releases all clamping pressure.
- 6. Check the results of the bend.
- 7. The workpiece may be reinserted, and the process repeated if necessary.

#### **CONTINUOUS, LIGHT CLAMPING**

This feature allows the Clamping Bar to impart a continuous light clamping pressure. This is useful for clamping a panel lightly in place on the Base Deck when using an Eastwood #13475 Electric Metal Shear or similar along the face of the Deck as a guide (**FIG 25**).

- **1.** Arrange the workpiece panel to be clamped between the Upper Deck of the Bender and the selected Bending Beam.
- 2. Once the Clamping Bar and panel are aligned, Switch on the (1), Power Switch then set the (11) Clamping When Bending Switch to "1", to energize Continual Light Clamping Force.
- 3. When done, set the (II) Clamping When Bending Switch to "O" then the (I), Power Switch to OFF.





#### **NORMAL, STRAIGHT BENDS (FIG 24)**

#### **A** NOTICE

DO NOT put narrow pieces under the Clamp Bar. Always bend workpieces 5/8" [0.16mm] or greater in width to avoid bending the Clamp Bar.

#### **A** NOTICE

The clamping force is greatest when the electromagnets are cold and will diminish as they heat up. DO NOT energize the electromagnets any longer than necessary.

- Turn the Bender Power Switch to the "ON" (1) position.
- Set the Clamp Bar onto the Base Deck with the steel Detent Balls on the outer ends of the underside, nested into the locating recesses in the Base Deck.
- Adjust bend radii for workpiece thickness by rotating the Eccentric Adjuster Knobs at the ends of the Clamping Bar.
- Rotate the Bending Beam up to the 90° position and check that it is parallel to the leading edge of the Clamp Bar.
- Add the dimension of the material thickness to the allowable bend radius for the material. The final figure will be the distance from the leading edge of the Clamping Bar to the face of the Bending Beam @ 90°.
- · Readjust the Eccentrics of needed.
- Insert the workpiece between the Clamping Bar and the Base Deck.
- Press and hold one of the Green Start Buttons or the Foot Pedal to apply a light, pre-clamping pressure.
- Slowly pull up on the Handles. This will automatically engage full clamping pressure. The Start Button or Foot Pedal may be released. Full clamping pressure will continue.
- · Continue to full planned bend.
- Moving Handles backward beyond 15° will release all clamping pressure.
- Remove workpiece.

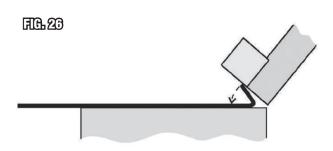
#### **CREATING A HEMMED/CRIMPED EDGE ON A PANEL (FIGS 26 & 27)**

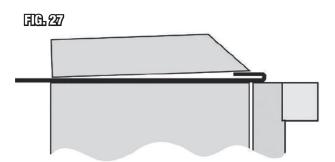
- Operate Bender as described in "Normal, Straight Bends" except continue bend to 135°-140°.
- Remove the Clamp Bar and move the workpiece back from the edge of the Base Deck approx. an additional 0.38" [10mm] depending on metal thickness.
- Without the Clamp Bar in place, rotate the Camp Bar back up to 180° to flatten the angled bend into a crimp.

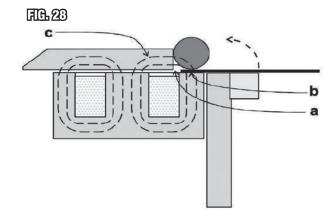
#### FORMING A RADIUSED/ROLLED EDGE ON A PANEL (FIGS 28 & 29)

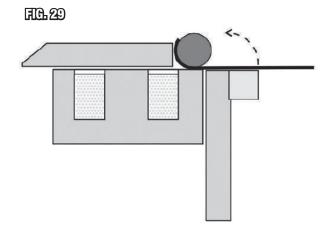
The Bender is operated as it is with "Normal, Straight Bends" however rolled edges are formed by wrapping the workpiece around a steel bar or piece of thick-walled pipe.

- Reverse the orientation of the Clamp Bar so that the vertical edge is facing outward, toward the Bending Beam.
- Move the Clamp Bar back from the front edge of the Base Deck distance of the
  pipe or bar diameter. NOTE: DO NOT exceed 3/4" diameter of bar or pipe to avoid
  placing it too far into the magnetic field which would diminish the effectiveness.
- Place the steel bar or pipe on the Base Deck with the outer circumference flush with the front edge of the Base Deck and against the vertical edge of the Clamp Bar.
- This will allow a 90° radius. To curve the material more than 90°, move the
  workpiece inward so that the curved material is between the bar or pipe and the
  vertical edge of the Clamp Bar.









#### **CREATING BOXES (UTILIZING SHORT CLAMP BARS) (FIG 30)**

The Bender is operated as it is with "Normal, Straight Bends" however the appropriate width Short Clamp or Clamps are used for the secondary sides of a box in place of one of the 52" Clamp Bars.

- Operate Bender as described in "Normal, Straight Bends" for the 1st two opposite ends of the box.
- Determine the width of the Short Clamp Bars for the bends needed to make up the secondary width of the planned box.
- Place the partially formed box workpiece on the Base Deck.
- Set the Short Clamps over the inside of the box workpiece.
- Operate Bender as described in "Normal, Straight Bends" with the Short Clamp Bars for the box sides.

As experience is gained in forming boxes, more complex details can be added such as tabs, flaps and flanges to the box sides.

#### FORMING TRAYS (UTILIZING THE SLOTTED CLAMP BAR) (FIG 31)

As details such as tabs, flaps and flanges are added to box sides, clearance provided by the slots in the Slotted Clamp Bar is needed. The Slotted Clamp Bar is used in combination with the Short Clamp Bars.

- Operate Bender as described in "Normal, Straight Bends" for the initial bends of the tray sides.
- The Slotted Clamp Bar is set up the same as the Solid Clamp Bar however the open slots will allow the tray sides and flaps to pass through the slots as the project becomes more complex.

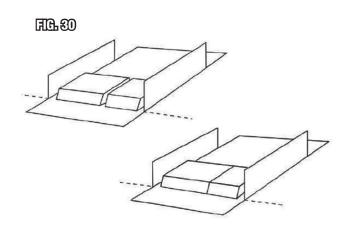
#### **USING THE BASE DECK AS A CUTTING GUIDE (FIG 32)**

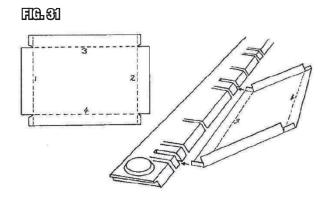
Sheets of steel can be clamped into place with the Solid Clamp Bar and the Stop Collars should be used as a stop guide for the edge of the material. The face of the bending bar is then used as a guide with an electric metal shear (not included).

- Operate Bender as normal for the clamping function by placing the metal panel to be cut under the Solid Clamping Bar.
- For repeatable cuts, set the Stop Collars on the Support Bars to the desired dimension.
- Switch on the Power Switch then set the Clamping When Bending Switch to "I", to energize Continual Light Clamping Force.
- · Allow the Bending Bar to remain in the down position.
- Carefully run the side of an Eastwood #13475 Electric Metal Shear (not included) blade housing along the face of the Bending Bar.

#### **A** CAUTION

DO NOT allow the blade of the Eastwood #13475 Electric Metal Shear (Not Included) to come in contact with the face of the Bending Bar or permanent damage can occur.







# **MAINTENANCE**

- Use a liberal amount of a good quality, heavy bodied chassis grease on the slide surfaces of the three hinges.
- Apply a thin motor or suitable lubricating oil to the pivoting portion of the hinges.
- Always keep the magnetic Base Deck of the Bender clean and free of any dirt accumulation or metal chips.
- · Keep the surfaces of the Clamping Bars free of dirt and metal chips.
- Always keep the Eastwood Electro-Brake in a dry location and store with a suitable cover in place.
- Keep all bare metal areas including the Base Deck lightly oiled to prevent rust formation when not in use.

# **TROUBLESHOOTING**

PROBLEM	CAUSE	CORRECTION
Does Not Operate When Switch is Turned On	No power to Electro-Brake	Check 240 VAC power connection.
		Check for tripped circuit breaker. The Electro-Brake operates on a 20 Amp Minimum circuit.
Magnetic Clamping Power is Weak	Excessive voltage drop due to undersized and or too long of electrical supply wiring.	Have electrical supply wiring checked by licensed electrician.
	Continued use will generate heat in coils which weakens the magnetic field	Allow unit to cool to room temperature before resuming work.
	Material to be formed is too thick or too hard	Limit material thickness to 0.63" [1.6mm] for mild steel.
Excessive Effort Required to Lift Handles While Bending	Workpiece too thick or too hard	Limit material thickness to 0.63" [1.6mm] for mild steel.

# **ADDITIONAL ITEMS**

#21327 Eastwood Elite 27" Bead Roller #51088 Eastwood Shrinker/Stretcher Set #13475 Eastwood Electric Metal Shears #11797 Eastwood Throatless Shear

#21489 Eastwood Elite Deep Jaw Shrinker Stretcher

#20254 Eastwood 24" Slip Roll