

*Eastwood*<sup>®</sup>

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Part #21128

# PNEUMATIC PERFECT PANEL PREP TOOL™ INSTRUCTIONS



The **EASTWOOD PNEUMATIC PERFECT PANEL PREP TOOL** is an exclusive design that provides a perfectly beveled 45° weld-prepped edge in 22 or 18 Gauge sheet metal to achieve solid, full-penetration butt welds. The convenient Hole Punch feature quickly punches perfect, burr free 3/16" holes ideal for rivet use.

## CONTENTS

Carefully unpack your light and check for the following items:

- (1) Eastwood Pneumatic Weld Prep/Punch Tool.
- (1) Hex Key, 5mm.

## SPECIFICATIONS

- Maximum capacity;
- Weld Prep – 22 to 18 Gauge Mild Steel.
- Punch – 16 Gauge Mild Steel.
- Air Consumption: MINIMUM, 4 CFM @ 90 PSI.
- Air Pressure: MAXIMUM, 90 PSI.
- Weld Prep Bend Angle: 45°.
- Weld Prep Bend Width: 7/8".
- Punched Hole Diameter: 3/16".
- Punch Hole Center Distance to Edge: 0.28".

## REQUIRED FOR USE

- The inlet air supply must have a moisture separator capable of removing all moisture and impurities from the air supply. Moisture and/or oil in the air supply will cause corrosion and failure of the Weld Prep Tool.
- A suitable regulator must be used to limit incoming air pressure to 90 PSI maximum, 80 PSI is ideal. Excessive air pressure can cause permanent damage to the unit and possible serious personal injury from bursting.
- For best results, a compressor capable of providing a minimum of 4 CFM @ 90 PSI is required. Less available CFM will not provide sufficient force to allow the Weld Prep Tool to adequately form the bend.

# SAFETY INFORMATION

## **⚠ DANGER**

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

## **⚠ WARNING**

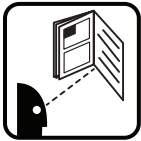
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

## **⚠ CAUTION**

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

## **⚠ NOTICE**

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



### **⚠ READ INSTRUCTIONS**

- Thoroughly read and understand these product instructions before using this tool.
- Keep these product instructions for future reference.



### **⚠ WARNING HEALTH & INJURY HAZARDS!**

- This tool can quickly start up when handling while connected to an air supply causing serious personal injury. Always disconnect the Weld Prep Tool from the air supply before cleaning jaws or other maintenance.
- Excessive air pressure can cause tool to explode resulting in tool damage and personal injury. Do not exceed 90 psi [6.3 bar] of tool inlet air pressure.



### **⚠ WARNING PINCH HAZARD!**

- This tool uses pneumatic pressure to greatly amplify clamping forces which can pinch fingers causing serious injury. Keep fingers away from moving parts of the Weld Prep Tool.



### **⚠ WARNING CUT HAZARD!**

- Handling sharp metal can cause cuts. Wear thick work gloves and long sleeves when using Weld Prep tool.

# ASSEMBLY

Thread a 1/4" MNPT Air Inlet Fitting (not included) into the Air Inlet Port on the bottom of the Weld Prep Tool. **NOTE:** The use of thread sealing tape (not included) is recommended.

## WELD-PREP OPERATION

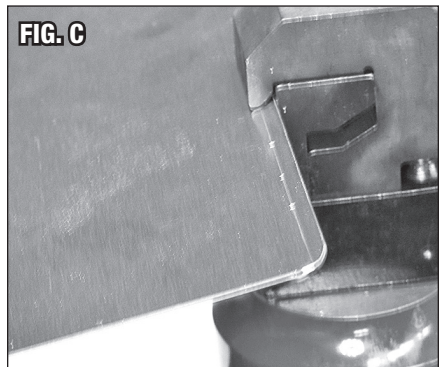
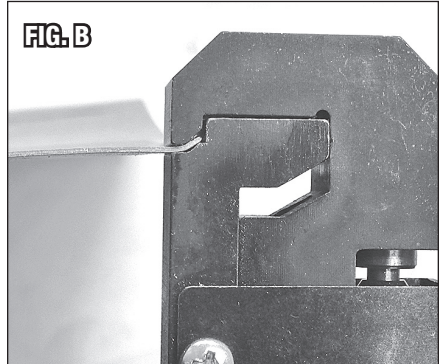
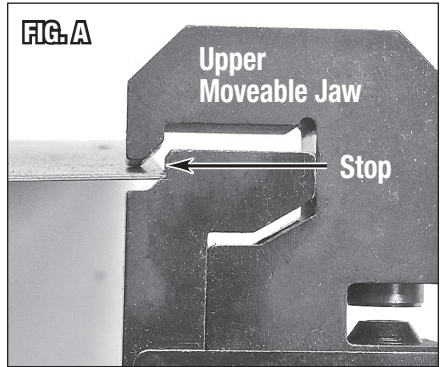
1. Be sure the metal to be weld-prepped is straight and free of burrs or jagged edges.
2. Place the open jaws of the Weld Prep Tool over the sheet metal edge with the edge back against the vertical stop surface of the lower, fixed jaw (**FIG A**) and the upper moving jaw forming the Weld Prep bend upward. **NOTE:** The 45° bend will be away from the direction of the main tool body (**FIG B**). Be sure to plan your work carefully before beginning. If you should accidentally bend your panel in the wrong direction, invert the direction of the tool and re-bend. Be aware that repeated bending will cause work hardening of the metal, fatigue and cracks.

**⚠ WARNING**  
**PINCH HAZARD!**

This tool uses pneumatic pressure to greatly amplify clamping forces which can pinch fingers causing serious injury. Keep fingers away from moving parts of the Weld Prep Tool.

3. Carefully depress paddle to close jaws to form a 45° the bend in the metal edge. (**FIG B**).
4. Release paddle to open jaws to check bend.
5. Move tool along the metal edge forming the weld-prep bend (**FIG C**).
6. Be sure to check the weld-prep bend profile as you progress along the metal edge.

**IMPORTANT NOTE:** As with any metal working tool, the Eastwood Weld Prep Tool requires a learning curve to achieve proficiency. Always practice on scrap material before using on an actual project.



# PUNCH OPERATION

1. Place the open jaws of the Punch over the sheet metal edge with the edge firmly against the vertical stop surface of the lower, fixed Jaw.

## **⚠ WARNING**

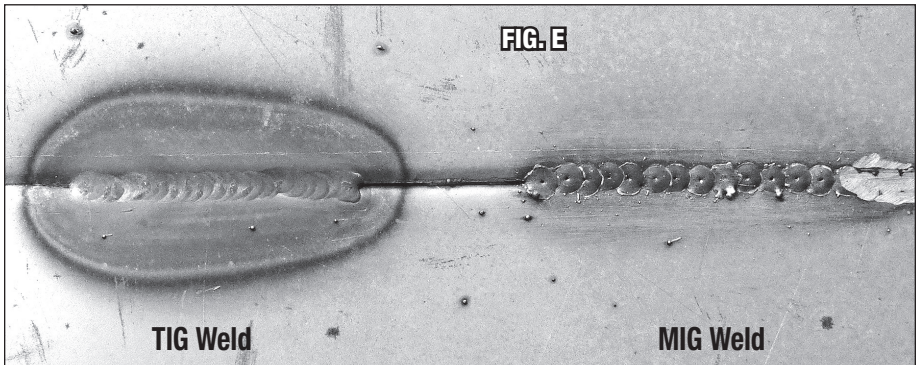
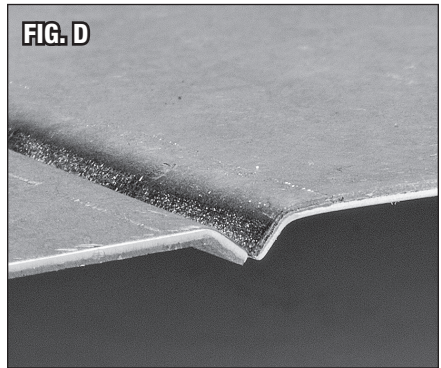
### **PINCH HAZARD!**

This tool uses pneumatic pressure to greatly amplify clamping forces which can pinch fingers causing serious injury. Keep fingers away from moving parts of the Weld Prep Tool.

2. Carefully depress paddle to actuate the punch.
3. Release paddle to open jaws.

# CREATING FULL-PENETRATION WELDS

1. Align panels with both weld prepped edges forming a "V" (**FIG D**).
2. MIG or TIG weld your panels filling the "V", allow to cool fully then grind flush creating a seamless, flat surface (**FIG E**).



# MAINTENANCE

- Add several (3-5) drops of air tool oil to air inlet before each use.
- If tool is to be unused for an extended period, add 10 drops of air tool oil to air inlet then store tool with the air inlet facing upward and plugged to keep debris and moisture out.
- Every 30 minutes of operation, fill the tool's hydraulic system with oil by removing the oil fill plug located at the upper side of the main tool body with 5mm hex key and fill with air tool oil then replace the oil fill plug.
- Periodically add several drops of light machine oil to the sliding surfaces of the jaws. Wipe off excess oil.
- Keep jaw surfaces clean of grit, metal chips excess oil and debris.

# TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
<b>Tool Will Not Form Adequate Bend or Punch</b>	Insufficient air to Weld Prep/Punch	Compressor inadequate. For best results, a compressor capable of at least 4 CFM @ 90 PSI is recommended. Lesser output will result in diminished performance.
		Air line from compressor too small. Use air supply line of 5/16" or larger.
		Air line from compressor too long. An air line of 25' maximum is recommended.
	Tool's hydraulic system is low on oil	Fill the tool's hydraulic system with oil by removing the oil fill plug located at the upper side of the main tool body with 5mm hex key and fill with air tool oil then replace the oil fill plug.
<b>Tool is Slow to Release</b>	Insufficient air to Weld Prep/Punch	Compressor inadequate. For best results, a compressor capable of at least 4 CFM @ 90 PSI is recommended. Lesser output will result in diminished performance.
		Air line from compressor too small. Use air supply line of 5/16" or larger.
		Air line from compressor too long. An air line of 25' maximum is recommended.
	Moveable Jaw Binding	Add several drops of light machine oil to the sliding surfaces of the jaws.

## ADDITIONAL ITEMS

#30180 Gloves

#21130 Eastwood Manual Weld Prep Tool

**Watch our patch panel how-to video at [eastwood.com](http://eastwood.com)!**

Search “Perfect Panel Prep Tool” or “21128”.

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**If you have any questions about the use of this product, please contact**

The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: [techelp@eastwood.com](mailto:techelp@eastwood.com)

PDF version of this manual is available online >> [eastwood.com/21128manual](http://eastwood.com/21128manual)

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