

## VEVOR CT-612

# VEVOR CT-612 Manual Pipe Bender

## INSTRUCTION MANUAL

[Introduction](#)   [Safety](#)   [Components](#)   [Specifications](#)   [Setup](#)   [Operation](#)   [Maintenance](#)   [Troubleshooting & Support](#)   [Warr](#)

### 1. Introduction

Thank you for choosing the VEVOR CT-612 Manual Pipe Bender. This tool is designed for precise bending of copper, aluminum, and thin-walled steel or stainless steel pipes. It features a 3-in-1 design, accommodating pipe diameters of 1/4 inch (6.35 mm), 3/8 inch (9.5 mm), and 1/2 inch (12.7 mm), and allows for bends from 0 to 180 degrees. This manual provides essential information for safe operation, setup, maintenance, and troubleshooting to ensure optimal performance and longevity of your pipe bender.

### 2. Safety Instructions

Always observe the following safety precautions when using the VEVOR CT-612 Manual Pipe Bender:

- **Read the Manual:** Familiarize yourself with all instructions and warnings before operation.
- **Wear Protective Gear:** Always wear safety glasses to protect against flying debris. Gloves are recommended for better grip and hand protection.
- **Inspect the Tool:** Before each use, check the pipe bender for any signs of damage, wear, or loose parts. Do not use a damaged tool.
- **Secure Workpiece:** Ensure the pipe is properly seated and secured in the bending groove to prevent slippage and injury.
- **Maintain a Stable Stance:** Use the tool on a stable surface and maintain good balance to prevent accidents.
- **Avoid Over-bending:** Do not attempt to bend pipes beyond their material limits or the tool's 180-degree capacity, as this can damage the pipe or the tool.
- **Pipe Wall Thickness:** This tool is suitable for pipes with a wall thickness of 0.5 mm to 1.2 mm. Bending pipes thinner than 0.5 mm may cause damage or kinking.
- **Keep Clear:** Keep hands and fingers away from pinch points during operation.
- **Store Safely:** Store the tool in a dry, secure place, out of reach of children and unauthorized users.

### 3. Product Overview and Components

The VEVOR CT-612 Manual Pipe Bender is a robust tool designed for efficient and precise pipe bending. Key components include:

- **Bending Formers:** Integrated formers for 1/4", 3/8", and 1/2" pipe diameters.

- **Handles:** Ergonomic, anti-slip rubberized handles for comfortable grip and leverage.
- **Angle Scales:** Clear, engraved angle markings (0-180°) for precise bending.
- **Movable Hook:** Secures the pipe during bending for stability.
- **Alignment Marks:** Indicators for proper pipe positioning.



Figure 1: Overview of the VEVOR CT-612 Manual Pipe Bender. This image shows the complete tool with its handles, bending head, and various components.



Figure 2: Close-up of the 3-in-1 bending design, illustrating the different pipe sizes (1/4", 3/8", 1/2") accommodated by the tool.

#### 4. Specifications

Feature	Detail
Model Number	CT-612
Bending Angle	0° - 180°
Applicable Pipe O.D.	1/4" (6.35 mm), 3/8" (9.5 mm), 1/2" (12.7 mm)
Applicable Pipe Materials	Copper, Aluminum, Thin Iron, Thin Stainless Steel
Pipe Wall Thickness	0.5 mm - 1.2 mm
Main Material	45# Steel + Aluminum Alloy + ABS + TPU
Net Weight	1.1 kg (2.42 lbs)
Dimensions	42.49 x 10.01 x 10.01 cm



Bending Angle: **0°-180°**

Applicable Pipes: **Copper Pipes, Aluminum Pipes, etc.**

Applicable Pipe O.D.: **1/4", 3/8", 1/2"**

Pipe Wall Thickness: **0.5-1.2mm**

Main Material: **45# Steel + Aluminum Alloy + ABS + TPU**

Net Weight: **2.42 lbs / 1.1 kg**

Figure 3: Visual representation of the pipe bender's specifications, including bending angle, applicable pipe sizes, and materials.

## 5. Setup

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Before beginning any bending operation, ensure your workspace is clean, well-lit, and free from obstructions. No assembly is required for the VEVOR CT-612 Manual Pipe Bender.

1. **Select the Correct Former:** Identify the appropriate bending groove on the tool that matches the outer diameter of your pipe (1/4", 3/8", or 1/2").
2. **Prepare the Pipe:** Ensure the pipe is clean, free of burrs, and cut to the desired length. Mark the bending point on the pipe if necessary.
3. **Adjust the Movable Hook:** Position the movable hook to align with the chosen bending groove.

## 6. Operating Instructions

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Follow these steps for safe and effective pipe bending:

1. **Insert the Pipe:** Carefully insert the pipe into the selected bending groove and under the movable hook. Ensure the pipe is snug and properly aligned with the alignment marks on the tool.
2. **Position for Bending:** Adjust the pipe so that the desired bending point aligns with the center of the bending former.
3. **Apply Force:** Hold both handles firmly. Apply steady, even pressure to the handles, slowly bringing them together. The pipe will begin to bend around the former.
4. **Monitor the Angle:** Observe the angle scales on the tool to achieve the desired bend angle (from 0° to 180°). Bend slowly to prevent kinking or deformation.
5. **Release the Pipe:** Once the desired angle is reached, release the pressure on the handles and

carefully remove the bent pipe from the tool.

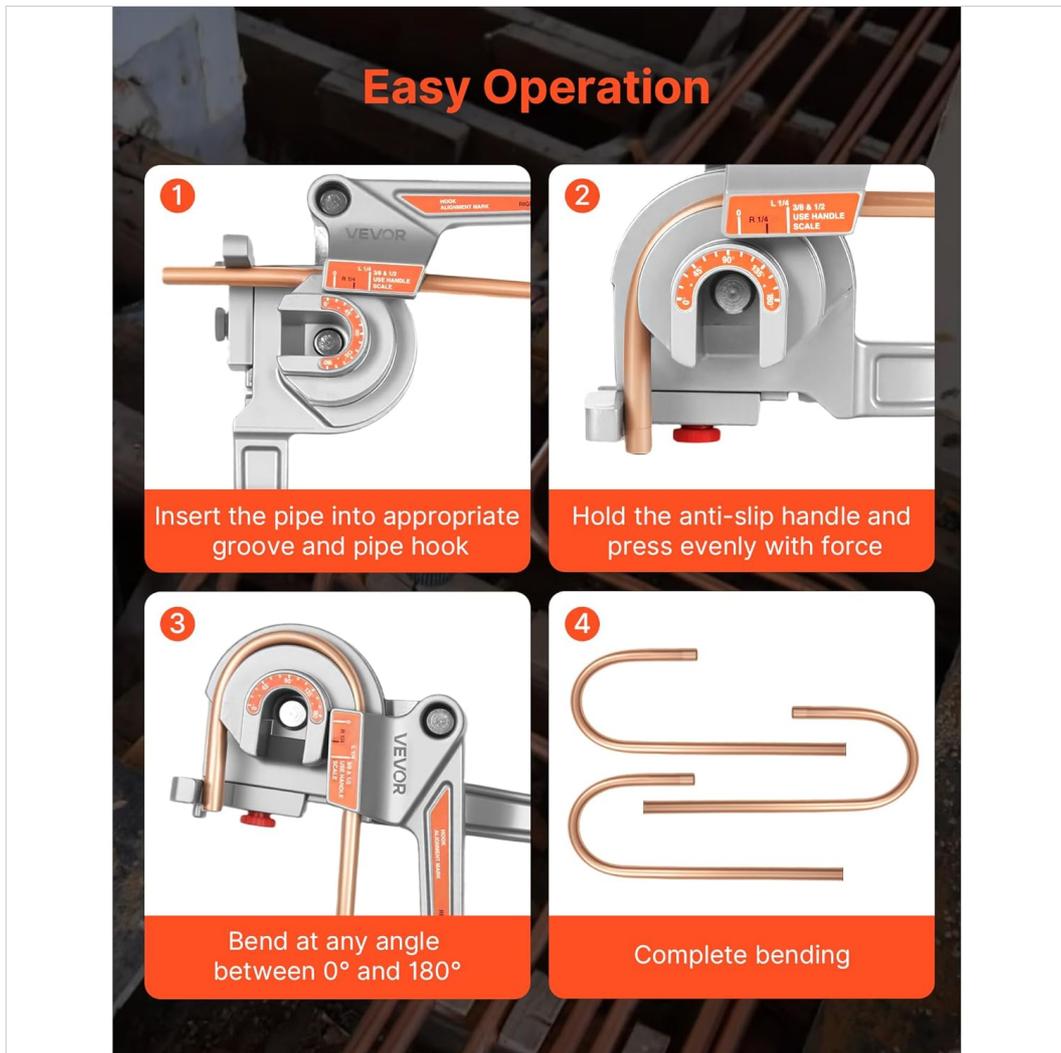


Figure 4: Step-by-step guide illustrating the process of inserting the pipe, applying force, monitoring the bend, and completing the operation.

## 0-180 Degrees Bending

No pressure damage, deformation, flattening



Figure 5: Demonstration of the tool's ability to create bends from 0 to 180 degrees, showing examples of 90-degree and 180-degree bends.



Figure 6: An image showing the VEVOR CT-612 Manual Pipe Bender actively being used to bend a copper pipe.

## 7. Maintenance

Proper maintenance ensures the longevity and reliable performance of your pipe bender:

- **Cleaning:** After each use, wipe down the tool with a clean, dry cloth to remove any dust, dirt, or metal shavings.
- **Lubrication:** Periodically apply a light coat of machine oil to the pivot points and moving parts to ensure smooth operation and prevent rust.
- **Inspection:** Regularly inspect the bending formers, handles, and movable hook for wear, damage, or deformation. Replace any worn or damaged parts immediately.
- **Storage:** Store the pipe bender in a dry environment to prevent corrosion. Keep it away from direct sunlight and extreme temperatures.

## 8. Troubleshooting

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
Pipe kinks or flattens during bending.	Incorrect pipe size selected, pipe wall too thin, bending too fast, or pipe material is too soft/hard.	Ensure the correct former size is used. Verify pipe wall thickness is between 0.5-1.2 mm. Bend slowly and steadily. Consider using a pipe filler for very soft materials if kinking persists.

Problem	Possible Cause	Solution
Bend angle is inaccurate.	Pipe not properly aligned, angle scale misread, or inconsistent pressure applied.	Ensure pipe is aligned with marks. Read the angle scale carefully. Apply consistent, even pressure throughout the bend.
Difficulty in bending.	Pipe material is too thick or too hard for manual bending, or tool requires lubrication.	Check pipe specifications against tool capacity. Apply lubricant to pivot points. For very hard materials, a different bending method may be required.
Tool feels stiff or squeaks.	Lack of lubrication, dirt buildup.	Clean the tool thoroughly and apply a light machine oil to all moving parts.

## 9. Warranty and Support

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VEVOR products are designed for durability and performance. For specific warranty information, please refer to the warranty card included with your purchase or visit the official VEVOR website. If you encounter any issues or require technical assistance, please contact VEVOR customer support through their official channels. Provide your model number (CT-612) and purchase details for faster service.

**Contact Information:** Please refer to the VEVOR official website or your purchase documentation for the most up-to-date customer support contact details.