

[Manuals.plus](#) /

› [WilTec](#) /

› WilTec Compact Universal Bending Machine Model 61899 Instruction Manual

## WilTec 61899

# WilTec Compact Universal Bending Machine Model 61899 Instruction Manual

Brand: WilTec | Model: 61899

## 1. INTRODUCTION

This manual provides instructions for the safe operation, setup, and maintenance of the WilTec Compact Universal Bending Machine, Model 61899. This versatile tool is designed for bending various metal profiles, including structural steel, flat steel, round steel, and square steel, making it suitable for both hobbyist and professional applications. Please read this manual thoroughly before operating the machine to ensure safe and efficient use.

## 2. GENERAL SAFETY INSTRUCTIONS

Always follow basic safety precautions to reduce the risk of injury or damage when using this bending machine.

- **Read the Manual:** Familiarize yourself with all instructions and warnings before operation.
- **Wear Personal Protective Equipment (PPE):** Always wear safety glasses, gloves, and appropriate work attire. Avoid loose clothing or jewelry that could get caught in moving parts.
- **Secure the Workpiece:** Ensure the material to be bent is securely held and will not slip during the bending process.
- **Stable Mounting:** The bending machine must be securely mounted to a stable workbench or surface to prevent tipping or movement during operation.
- **Avoid Overloading:** Do not attempt to bend materials exceeding the machine's specified capacity. This can damage the machine and cause injury.
- **Keep Clear:** Keep hands, fingers, and other body parts away from moving parts and the bending area during operation.
- **Maintain a Clean Work Area:** Keep your workspace tidy and well-lit to prevent accidents.
- **Supervision:** Do not allow untrained individuals to operate the machine. Keep children and bystanders away from the work area.

## 3. PACKAGE CONTENTS

Verify that all components are present and undamaged before beginning assembly or operation. If any parts are missing or damaged, contact WilTec customer support.

- Bending machine main unit with base plate
- Operating handle
- Set of bending dies/forms (various sizes)
- Fasteners for securing components



Image: Overview of the WilTec Compact Universal Bending Machine with its various components, including the main unit, operating handle, and a selection of bending dies.

## 4. SETUP AND ASSEMBLY

### 4.1. Mounting the Bending Machine

The bending machine's base plate features four pre-drilled holes ( $\varnothing 15.87$  mm) for secure mounting to a workbench or other stable surface. Ensure the mounting surface is robust enough to withstand the forces generated during bending operations. Use appropriate bolts and nuts (not included) to firmly secure the unit.

### 4.2. Attaching the Operating Handle

Insert the long operating handle into the designated slot on the bending arm. Secure it with the provided pin or fastener, ensuring it is firmly seated to prevent dislodgement during use.

### 4.3. Selecting and Installing Bending Dies

Choose the appropriate bending die (form) and counter-dies based on the material dimensions and desired bend radius. The machine includes various dies for different bending requirements. Position the selected dies correctly within the bending mechanism as illustrated in the product images.

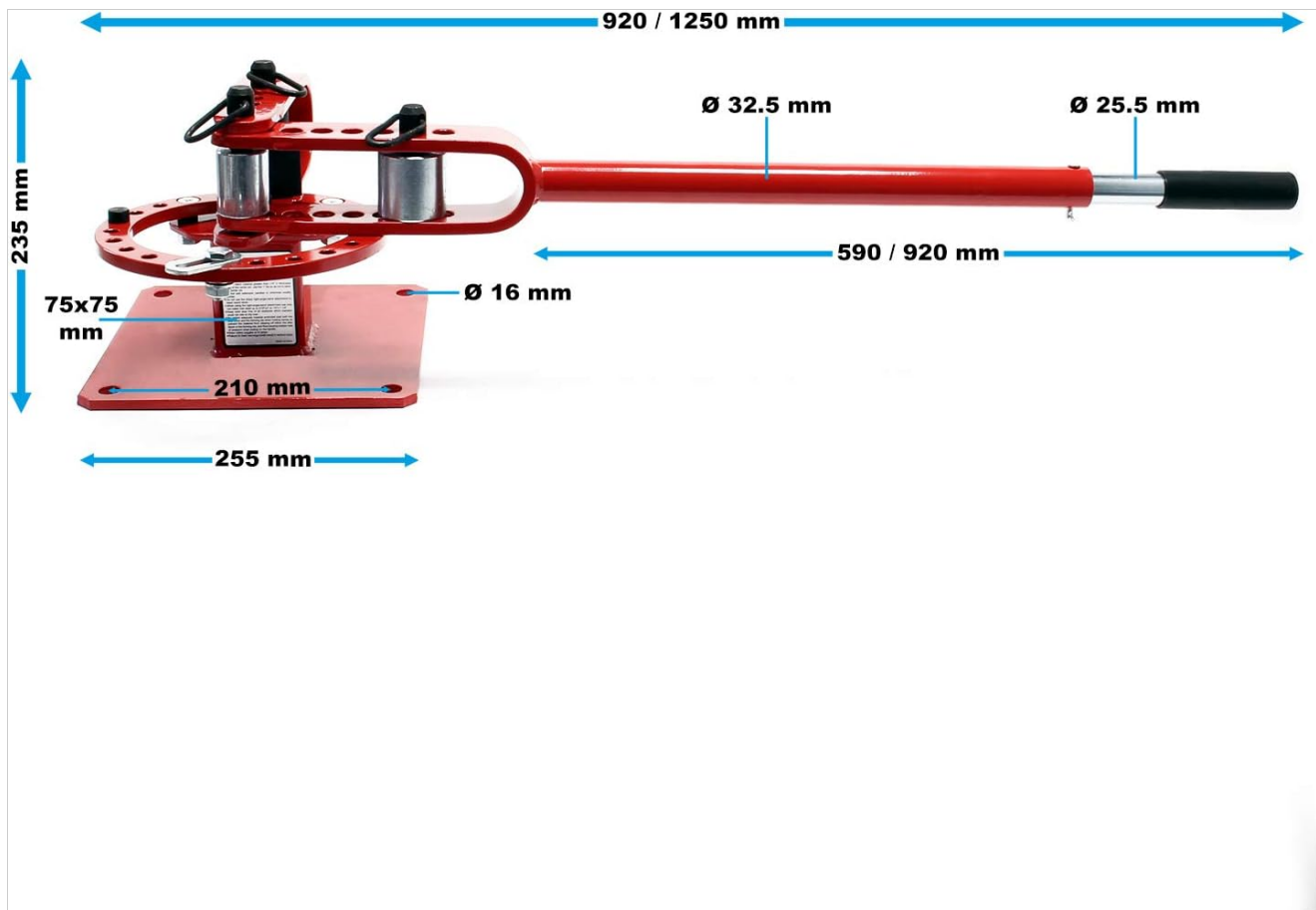


Image: Dimensional drawing of the WilTec Compact Universal Bending Machine, showing overall length, height, base dimensions, and handle diameters. This helps in planning installation space.

## 5. OPERATING INSTRUCTIONS

### 5.1. Material Preparation

Ensure the material to be bent (structural steel, flat steel, round steel, or square steel) is clean and free from defects. Verify that the material dimensions are within the machine's capacity:

- Maximum strip width: 49.2 mm
- Soft steel capacity: 7.9 mm x 31.75 mm or 6.35 mm x 50.8 mm

### 5.2. Positioning the Material

Carefully place the material between the selected bending die and the counter-dies. Ensure the material is properly aligned and seated against the stops or guides to achieve the desired bend angle and position. Incorrect positioning can lead to uneven bends or material damage.

### 5.3. Performing the Bend

Apply steady, controlled pressure to the operating handle. Gradually move the handle to initiate and complete the bend. Avoid sudden jerks or excessive force, which can damage the material or the machine. Monitor the bending process to ensure the material forms correctly. Release pressure slowly once the desired bend angle is achieved.

### 5.4. Adjusting for Different Bends

The machine comes with multiple bending dies/forms (25.4 mm, 31.75 mm, 38.1 mm, 44.45 mm, 50.8 mm, 63.5 mm, 76.2 mm). Experiment with different die combinations to achieve various bend radii and angles. Always ensure the chosen dies are appropriate for the material and desired bend.

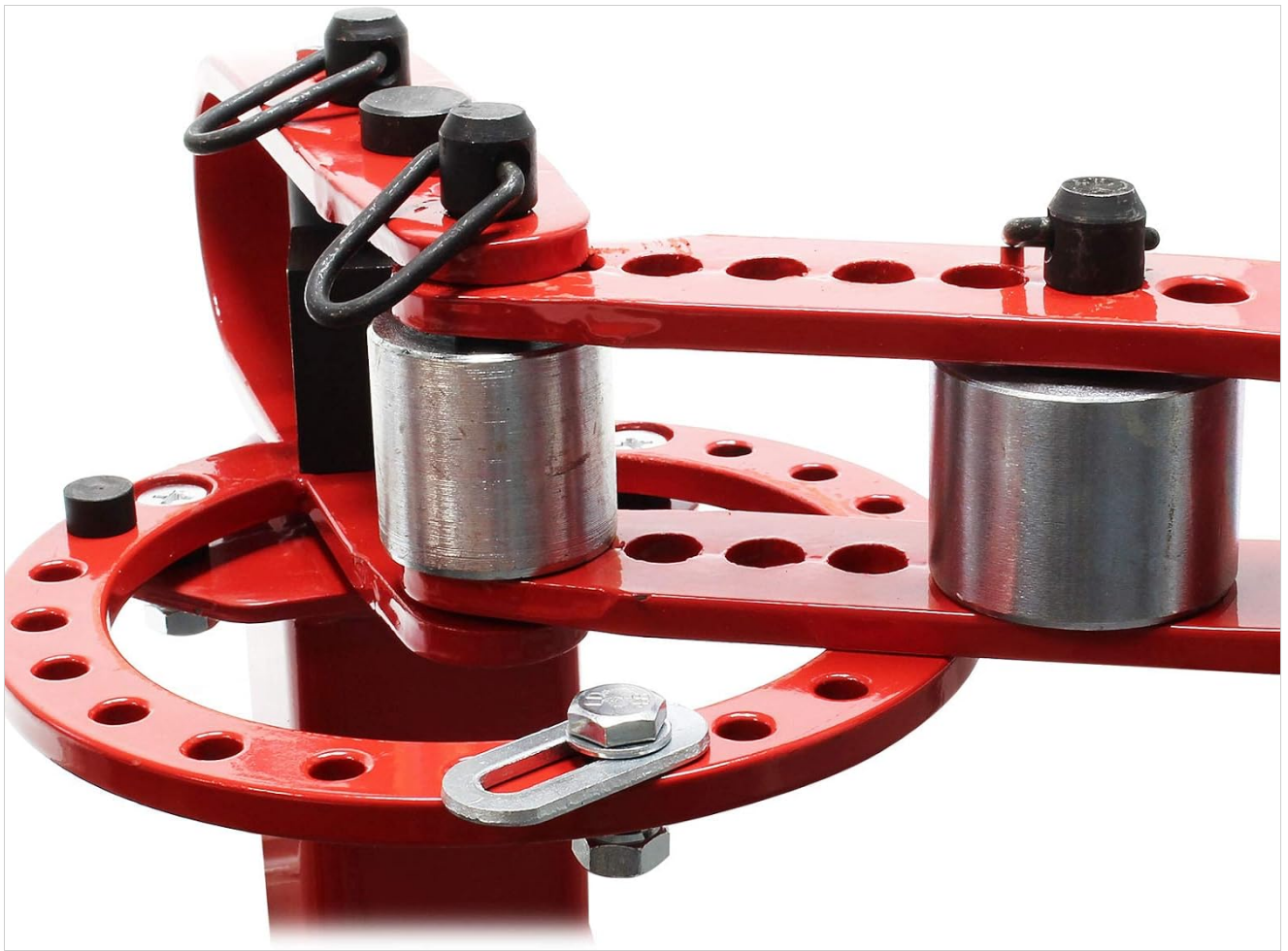


Image: Close-up view of the bending mechanism, highlighting the central bending die and the adjustable pins that guide the material during the bending process.



Image: Another detailed view of the bending arm and its interaction with the base, showing how the material is secured and bent around the die.



Image: A collection of various bending dies and forms included with the machine, demonstrating the versatility for different material shapes and bend radii.

## 6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your bending machine.

- **Cleaning:** After each use, clean the machine to remove metal shavings, dust, and debris. Use a brush or compressed air.
- **Lubrication:** Periodically lubricate all moving parts, pivot points, and threaded components with appropriate machine oil to ensure smooth operation and prevent rust.
- **Inspection:** Regularly inspect the bending dies, pins, and the main structure for signs of wear, damage, or deformation. Replace worn or damaged parts immediately.
- **Storage:** Store the bending machine in a dry, clean environment when not in use to prevent corrosion.

## 7. TROUBLESHOOTING

If you encounter issues during operation, refer to the following troubleshooting guide:

### 7.1. Material Not Bending Correctly or Slipping

- **Check Material Dimensions:** Ensure the material's thickness and width are within the machine's specified capacity.
- **Die Selection:** Verify that the correct bending dies are installed for the material type and desired bend radius.
- **Material Positioning:** Ensure the material is securely positioned and aligned against the stops or guides.

### 7.2. Excessive Force Required for Bending

- **Material Capacity:** Confirm that the material type and thickness are within the machine's soft steel capacity. Attempting to bend harder or thicker materials may require significantly more force or be beyond the machine's capability.
- **Lubrication:** Ensure all moving parts and pivot points are adequately lubricated.
- **Leverage:** Ensure the operating handle is fully engaged and provides sufficient leverage.

7.3. Inconsistent Bends

- **Consistent Positioning:** Ensure the material is consistently positioned for each bend.
- **Die Condition:** Check bending dies and pins for wear or damage that could affect bend accuracy.
- **Even Pressure:** Apply steady, even pressure throughout the bending process.

8. TECHNICAL SPECIFICATIONS

| Feature                        | Specification                                                   |
|--------------------------------|-----------------------------------------------------------------|
| Manufacturer                   | WilTec                                                          |
| Model Number                   | 61899                                                           |
| Product Dimensions (L x W x H) | 25.5 x 125 x 23.5 cm                                            |
| Weight                         | 15.95 kg                                                        |
| Base Plate Fixing Holes        | 4 holes, Ø 15.87 mm                                             |
| Maximum Strip Width            | 49.2 mm                                                         |
| Soft Steel Capacity            | 7.9 mm x 31.75 mm or 6.35 mm x 50.8 mm                          |
| Included Bending Dies/Forms    | 25.4 mm, 31.75 mm, 38.1 mm, 44.45 mm, 50.8 mm, 63.5 mm, 76.2 mm |
| Country of Origin              | China                                                           |

9. WARRANTY AND CUSTOMER SUPPORT

For warranty information, technical assistance, or to inquire about spare parts, please contact WilTec customer support. Refer to your purchase documentation or the official WilTec website for specific warranty terms and contact details. Please have your model number (61899) and purchase date available when contacting support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

#### Question

Example: How do I reset this device or fix this error?

#### Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

---

Open the live page

<https://manuals.plus/asin/B082XH4YD2>

More documents and user manuals: <https://manuals.plus/>