KAKA INDUSTRIAL W-3616Z

KAKA INDUSTRIAL Box and Pan Brake User Manual

Model: W-3616Z (36inch 16Ga.)

Manufacturer: KAKA INDUSTRIAL LLC

1. Introduction

Thank you for choosing the KAKA INDUSTRIAL Box and Pan Brake. This manual provides essential information for the safe and efficient operation, setup, and maintenance of your new machine. Please read this manual thoroughly before operating the brake to ensure proper use and to prevent injury or damage to the equipment. Keep this manual accessible for future reference.

2. Safety Instructions

WARNING: Failure to follow these safety instructions may result in serious injury or death.

- **Product Weight:** This product is extremely heavy (271 pounds). Two or more people are required for lifting and moving the machine. Use appropriate lifting equipment if necessary.
- **Personal Protective Equipment (PPE):** Always wear safety glasses or a face shield, gloves, appropriate foot protection, and appropriate hearing protection when operating or working near the machine.
- **Pinch Points:** Keep hands and fingers clear of all pinch points, especially around the bending dies, hold-down assembly, and apron.
- **Workpiece Security:** Ensure the workpiece is securely clamped before initiating any bending operation. A loose workpiece can cause injury or damage.
- **Machine Capacity:** Do not overload the machine. Adhere strictly to the specified maximum capacity of 16-gauge mild steel over a 36-inch width. Exceeding capacity can damage the machine and cause injury.
- **Tool Removal:** Remove all adjustment tools, wrenches, and other foreign objects from the machine before operating.
- **Read Instructions:** Read and understand all instructions in this manual before operating this tool. If you

have any questions, contact KAKA INDUSTRIAL LLC.

- **Stable Environment:** Operate the machine on a stable, level surface. Secure the machine to the floor or a heavy-duty workbench to prevent tipping or movement during operation.
- **Clear Work Area:** Keep the work area clean, well-lit, and free of clutter. Ensure adequate space around the machine for safe operation and material handling.
- **Unauthorized Use:** Do not allow untrained personnel to operate the machine.

For visual reference, observe the warning label on the machine:

Image: Warning label detailing safety precautions for operation.

3. Product Overview

The KAKA INDUSTRIAL W-3616Z Box and Pan Brake is a robust and versatile machine designed for bending sheet metal. It features heavy-duty construction with a solid steel welded body, ensuring durability and stability for professional applications. The machine is capable of bending 16-gauge mild steel over a 36-inch width, with an adjustable bending range from 1° to 135°.

Key Features:

- **Heavy-Duty Construction:** Built with a solid steel welded body and durable hold-down clamp lever for strength and stability.
- **Powerful Bending Capacity:** Bends 16-gauge mild steel over a 36-inch width with a 1°–135° range.
- **Adjustable & Removable Fingers:** Includes six removable fingers (1", 2", 3", 8", 10", 12") to adapt for box, pan, and straight bends.
- **Precision & Versatility:** Features a precision-aligned bed and apron, with adjustable finger setback and blade gap for accurate bending of various metals and thicknesses.
- **Multi-Use Applications:** Suitable for stainless steel, copper, aluminum, and more, ideal for workshops, repair shops, schools, and hobbyists.

Components:

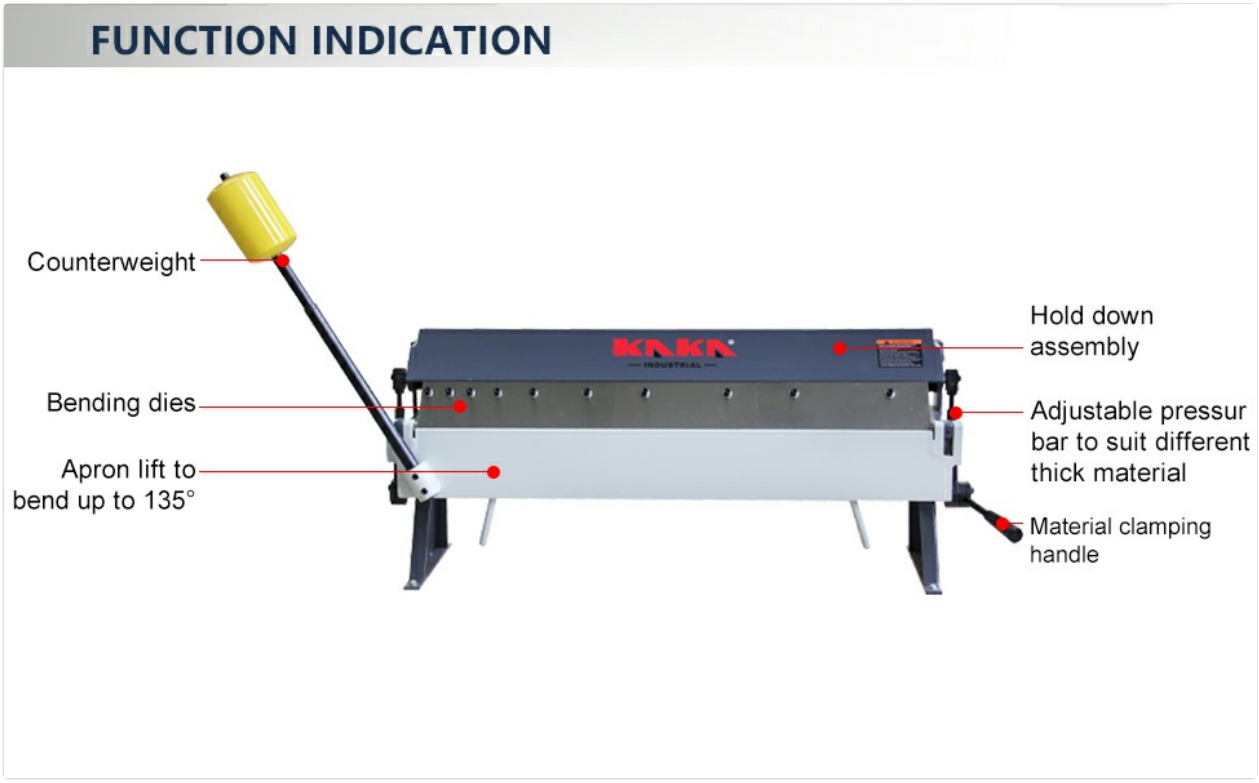

Image: Functional diagram indicating key components such as the counterweight, bending dies, apron lift, hold-down assembly, adjustable pressure bar, and material clamping handle.

- **Counterweight:** Provides leverage and balance for the bending operation.
- **Bending Dies:** The upper and lower tooling that forms the bend in the material.
- **Apron Lift:** The mechanism that raises the apron to perform the bend, allowing angles up to 135°.
- **Hold Down Assembly:** Secures the workpiece firmly during the bending process.
- **Adjustable Pressure Bar:** Allows adjustment to suit different material thicknesses.
- **Material Clamping Handle:** Used to engage and disengage the hold-down assembly.

Image: Front view of the KAKA INDUSTRIAL Box and Pan Brake, showcasing its overall design and main components.

Image: Side view of the KAKA INDUSTRIAL Box and Pan Brake, highlighting the operating handle and counterweight.

4. Setup

4.1 Unpacking and Inspection

1. Carefully unpack the machine from its wooden crate. Due to its weight, ensure adequate lifting assistance (two or more people or appropriate lifting equipment).
2. Inspect the machine for any signs of shipping damage. Report any damage to the carrier and KAKA INDUSTRIAL LLC immediately.
3. Verify that all components listed in the packing list are present.

4.2 Assembly (if required)

The KAKA INDUSTRIAL Box and Pan Brake typically arrives largely pre-assembled. However, some minor assembly, such as attaching the operating handle and counterweight, may be required.

1. Attach the operating handle to the designated pivot point on the side of the machine, securing it with the provided fasteners.
2. Install the counterweight onto the end of the operating handle, ensuring it is firmly in place.

Image: Side view showing the installed operating handle and counterweight, essential for leverage during bending.

4.3 Securing the Machine

For safe and stable operation, it is highly recommended to secure the box and pan brake to a sturdy workbench or the floor.

1. Position the machine on a level, stable surface.
2. Use appropriate bolts and anchors to secure the machine's base to the workbench or floor. Ensure all mounting points are utilized and tightened securely.

4.4 Initial Adjustments

1. **Finger Installation:** Select the appropriate fingers (1", 2", 3", 8", 10", 12") for your desired bend and install them onto the upper beam. Ensure they are securely fastened.
2. **Blade Gap Adjustment:** The machine features an adjustable blade gap. Adjust this gap to match the thickness of the material you intend to bend. A proper gap ensures clean bends and prevents damage to the machine or workpiece.
3. **Finger Setback:** Adjust the finger setback as needed for precise bending, especially for complex box and pan shapes.

5. Operating Instructions

5.1 Material Preparation

1. Ensure your sheet metal is clean, free of burrs, and cut to the correct dimensions.
2. Mark your bend lines clearly on the material.

5.2 Setting Up Fingers for Specific Bends

- **Straight Bends:** Use a single long finger or multiple fingers combined to cover the desired bending width.
- **Box and Pan Bends:** Arrange the removable fingers to create the necessary gaps for forming the sides of a box or pan. Ensure the fingers are tightly secured to prevent movement during bending.

5.3 Adjusting the Hold-Down Clamp

1. Place the workpiece under the hold-down clamp, aligning the bend line with the edge of the bending die.
2. Engage the material clamping handle to firmly secure the workpiece. Ensure the material is clamped evenly across its width to prevent slipping or uneven bends.

5.4 Bending Process

1. Once the material is securely clamped, grasp the operating handle firmly.
2. Apply steady, even pressure to the handle, pulling it upwards to raise the apron and form the bend.
3. Continue bending until the desired angle (up to 135°) is achieved. Use an angle gauge for precision.
4. Slowly lower the handle to return the apron to its original position.
5. Release the material clamping handle and carefully remove the bent workpiece.

5.5 Safety During Operation

- Always maintain a firm grip on the operating handle.
- Never place hands or fingers near the bending area while the machine is in operation.
- Do not force the machine if resistance is encountered; re-check material thickness, clamping, and adjustments.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your KAKA INDUSTRIAL Box and Pan Brake.

6.1 Cleaning

- After each use, clean the machine thoroughly to remove metal shavings, dust, and debris. Use a brush or shop vacuum.
- Wipe down all surfaces with a clean cloth.

6.2 Lubrication

- Periodically lubricate all moving parts, pivot points, and adjustment screws with a light machine oil or grease.
- Pay particular attention to the apron pivot points and the hold-down mechanism.

6.3 Inspection

- Regularly inspect the machine for signs of wear, damage, or loose fasteners.
- Check all bolts and nuts for tightness and re-tighten as necessary.
- Inspect the bending dies and fingers for nicks, burrs, or excessive wear. Replace damaged components if needed.

6.4 Storage

- When not in use, store the machine in a dry, clean environment to prevent rust and corrosion.
- Consider applying a thin coat of rust preventative oil to exposed metal surfaces if storing for extended periods.

7. Troubleshooting

This section addresses common issues you might encounter with your box and pan brake.

Problem	Possible Cause	Solution
Inaccurate or uneven bends	• Workpiece not clamped securely • Incorrect finger setup • Blade gap not adjusted for material thickness • Material slipping during bend	• Ensure material clamping handle is fully engaged. • Verify fingers are correctly positioned and tightened. • Adjust blade gap according to material thickness. • Clean bending dies and workpiece surface.
Difficulty operating the lever / Excessive force required	• Material thickness exceeds machine capacity • Lack of lubrication on moving parts • Loose or misaligned components	• Do not attempt to bend material thicker than 16-gauge mild steel. • Apply lubricant to pivot points and moving mechanisms. • Inspect and tighten all fasteners.
Machine instability / Movement during operation	• Machine not securely bolted down • Uneven floor or workbench surface	• Ensure the machine is firmly bolted to a stable workbench or floor. • Place the machine on a level surface.

8. Specifications

Technical specifications for the KAKA INDUSTRIAL W-3616Z Box and Pan Brake:

Attribute	Value
Manufacturer	KAKA INDUSTRIAL LLC

Attribute	Value
Part Number	173122
Item Weight	271 pounds
Product Dimensions	46 x 16 x 23 inches
Item Model Number	173122
Size	36inch 16Ga.
Style	Pan and Box Brake Counterweight
Material	Metal
Power Source	Hand Powered
Item Package Quantity	1
Bending Angle Range	1°–135°
Removable Fingers	1", 2", 3", 8", 10", 12" (6 total)

9. Warranty and Support

KAKA INDUSTRIAL LLC stands behind the quality of its products. For specific warranty information, please refer to the documentation included with your purchase or contact KAKA INDUSTRIAL LLC directly.
This product typically comes with a 30-day easy return policy. Extended protection plans may also be available for purchase, including 3-Year, 4-Year, and Complete Protect options.
For technical assistance, parts, or any inquiries regarding your KAKA INDUSTRIAL Box and Pan Brake, please contact the manufacturer:
KAKA INDUSTRIAL LLC
Refer to your purchase documentation or the KAKA INDUSTRIAL website for the most current contact information.