

KAKA INDUSTRIAL RM-08

KAKA INDUSTRIAL RM-08 Manual Sheet Metal Bead Roller Instruction Manual

Model: RM-08 | Brand: KAKA INDUSTRIAL

1. INTRODUCTION

The KAKA INDUSTRIAL RM-08 Manual Bead Roller is a hand-operated sheet metal forming machine designed for various applications, particularly in HVAC projects. This robust tool allows for precise forming operations such as beading, crimping, burring, and ogee forming. Its manual operation ensures ease of use and high precision, contributing to reduced working time for your projects.

This manual provides essential information for the safe and efficient operation, setup, and maintenance of your RM-08 bead roller. Please read it thoroughly before operating the machine.

2. SAFETY INSTRUCTIONS

Always prioritize safety when operating any machinery. Failure to follow these instructions may result in injury or damage to the equipment.

- **Read the Manual:** Understand all operating procedures and safety warnings before use.
- **Wear Personal Protective Equipment (PPE):** Always wear safety glasses to protect your eyes from flying debris. Gloves are recommended to protect hands from sharp edges of sheet metal.
- **Secure the Workpiece:** Ensure the sheet metal is properly positioned and secured before beginning any operation.
- **Stable Mounting:** Mount the machine securely to a sturdy workbench or surface to prevent movement during operation.
- **Keep Hands Clear:** Never place hands or fingers near the rotating dies or moving parts during operation.
- **Clear Work Area:** Keep your work area clean and free of clutter to prevent accidents.
- **Inspect Before Use:** Before each use, inspect the machine for any damaged or loose parts. Do not operate if any components are compromised.
- **Proper Ventilation:** Ensure adequate ventilation if working with materials that may produce fumes or dust.

- **Children and Bystanders:** Keep children and bystanders away from the operating area.

3. COMPONENTS OVERVIEW

The KAKA INDUSTRIAL RM-08 comes with essential components for various sheet metal forming tasks.

- **Main Body:** The primary frame housing the gears and shafts for the forming rolls.
- **Forming Rolls (Dies):** Six sets of interchangeable rolls for different profiles, including 1/4" turning, 1/8" turning, wiring, crimping, burring, and ogee.
- **Hand Crank:** Used to manually rotate the forming rolls and feed the material.
- **Adjustable Depth Stops:** Two stops (one on each side) to guide the material and ensure straight, repeatable lines.
- **Top Adjustment Knob:** Allows for fine-tuning the forming depth and adjusting the pressure between the rolls.
- **Mounting Clamp:** Integrated clamp for securing the machine to a workbench.



Figure 3.1: Overview of the KAKA INDUSTRIAL RM-08 Manual Bead Roller and its included dies.

6 set dies come with the machine



Figure 3.2: The six sets of forming dies included with the RM-08 machine.

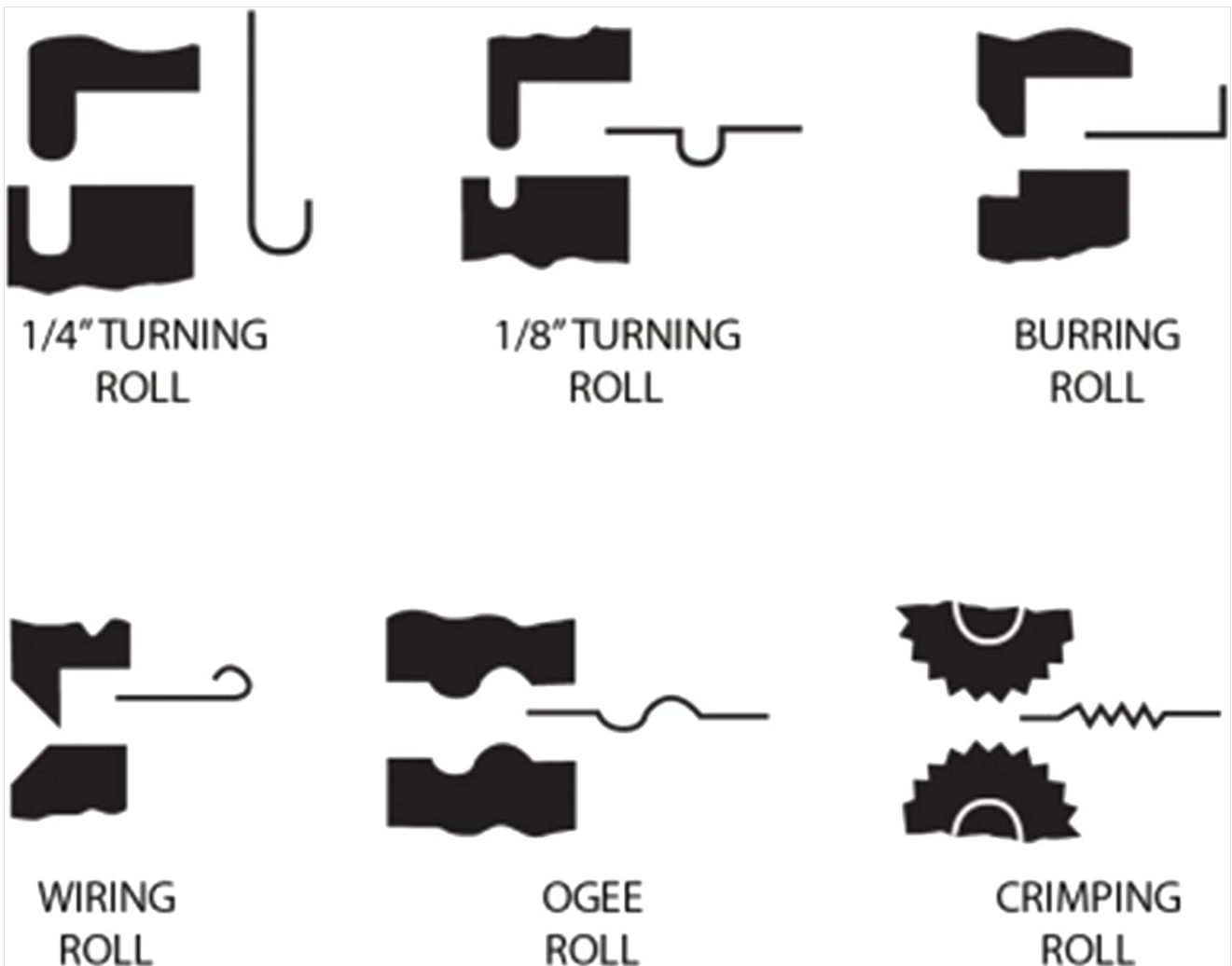


Figure 3.3: Illustrations of the various roll profiles: 1/4" turning, 1/8" turning, burring, wiring, ogee, and crimping rolls.

4. SETUP

Proper setup is crucial for stable and accurate operation.

4.1 Mounting the Machine

1. Identify a sturdy workbench or table with a suitable edge for clamping.
2. Position the RM-08 bead roller on the edge of the workbench.
3. Tighten the integrated mounting clamp securely until the machine is firmly attached and does not wobble.



Figure 4.1: The integrated mounting clamp used to secure the machine to a workbench.

4.2 Installing Forming Rolls (Dies)

1. Select the desired set of forming rolls for your specific application (e.g., beading, crimping).
2. Ensure the machine is off and the rolls are disengaged (loosen the top adjustment knob if necessary).
3. Carefully slide the chosen rolls onto their respective shafts. Ensure they are seated correctly and aligned.
4. Tighten any retaining mechanisms if present (refer to specific roll design).

5. OPERATING INSTRUCTIONS

Follow these steps for effective and safe operation of your RM-08 bead roller.

5.1 Basic Operation

1. **Select Dies:** Choose the appropriate forming rolls for your desired profile (refer to Section 3).
2. **Adjust Depth Stops:** Utilize the two adjustable depth stops to guide your material. These stops help create straight and repeatable lines. You can feed material from either the left or right side of the machine.
3. **Adjust Forming Depth:** Use the top adjustment knob to control the depth of the form and the pressure between the rolls. Turn clockwise to increase pressure/depth, counter-clockwise to decrease.
4. **Insert Material:** Carefully insert the edge of your sheet metal between the forming rolls.
5. **Crank Operation:** Begin turning the hand crank. The crank moves the rolls and pulls the material through, forming the desired profile. Maintain a steady pace for consistent results.



Figure 5.1: Detail of the forming rolls and the adjustable depth stop.



Figure 5.2: The top knob for adjusting forming depth and roll pressure.

5.2 Specific Forming Operations

The RM-08 is versatile for various sheet metal forming tasks:

- **Beading:** Used to create a reinforcing bead along the edge of a sheet.
- **Crimping:** Forms a series of small, uniform folds or ridges, often used for joining ducts.
- **Burring:** Creates a raised edge or flange.
- **Ogee Beading:** Produces a decorative S-shaped curve.
- **Turning (1/4" and 1/8"):** Creates a precise bend or hem at specified distances from the edge.
- **Wiring:** Forms a channel for inserting a wire to stiffen an edge.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your bead roller.

- **Cleaning:** After each use, wipe down the machine to remove metal shavings and dust. Use a brush for hard-to-reach areas.
- **Lubrication:** Periodically apply a light machine oil to the shafts, gears, and other moving parts to ensure smooth operation and prevent rust.
- **Inspection:** Regularly inspect the forming rolls for wear or damage. Replace worn dies to maintain forming quality. Check all fasteners for tightness.

- **Storage:** Store the machine in a dry environment to prevent corrosion.

7. TROUBLESHOOTING

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
Inconsistent forming / Uneven bead	Material not fed straight; Insufficient pressure; Worn dies	Use depth stops for guidance; Adjust top knob to increase pressure; Inspect and replace worn dies.
Difficulty cranking	Excessive pressure; Lack of lubrication; Material too thick	Reduce pressure with top knob; Lubricate moving parts; Ensure material is within machine's gauge capacity.
Machine wobbles during operation	Improper mounting	Re-tighten the mounting clamp securely to a stable surface.
Dies not engaging material	Insufficient pressure; Incorrect die installation	Increase pressure with top knob; Re-install dies ensuring proper seating.

8. SPECIFICATIONS

Feature	Specification
Model Number	RM-08
Manufacturer	KAKA INDUSTRIAL LLC
Power Source	Hand-powered
Material	Metal
Color	Gray
Throat Depth	7 inches (17 cm)
Capacity (Mild Steel)	22 Gauge (0.76 mm)
Included Components	Main Body, 6 Sets of Forming Rolls
Product Dimensions (L x W x H)	20 x 18 x 7 inches (50.8 x 45.72 x 17.78 cm)
Item Weight	43 Pounds (19.5 kg)

9. WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please contact KAKA INDUSTRIAL directly. Keep your purchase receipt as proof of purchase.

For general inquiries or assistance, you may visit the KAKA INDUSTRIAL website or contact their customer service department.

