

KAKA Industrial®

Unpacking

The UNIVERSAL BENDER is shipped from the manufacturer in a carefully packed Carton box. Thoroughly inspect the product upon opening the package.

After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. Shipping damage claims must be filed with the carrier and are the responsibility of the user.

Specifications

The KAKA UNIVERSAL BENDER is the perfect addition to any fabricator's work bench. It is precision designed and manufactured to allow for quick and easy wire, flat metal and tubing into clamps, handle brackets, hooks, coils, and more. Make sharp angle bends in wire and rod. Includes circle pins for 3/16", 1/4", 1/2" dia, circle 1" diacircle die, form pin follower, sharp angle die, gauge and handle



Stock No.173207
 Model.....MUB-1
 Packing size.....13"x4"x4" (32X10X10 cm)
 N.W./G.W.....6.2/6.6 lbs (2.8/3 kg)

SAVE THESE INSTRUCTIONS

Thank you for purchasing our MUB-1 UNIVERSAL BENDER machine. Before attempting to operate your new tool please

read these instructions thoroughly. You will need these instructions for the safety warnings, precautions, assembly, operation, maintenance procedures, parts list and diagrams. Keep your invoice number with these instructions. Write the invoice number on the inside of front cover. Keep the instructions and invoice in a safe, dry place for future reference.

General Safety Information

▲ CAUTION

Always follow proper operating procedures as defined in this manual even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

SAFETY RULES

1. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
2. Wear protective hair covering to contain long hair.
3. Wear safety shoes with non-slip soles.
4. Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses.
5. Be alert and think clearly. Never operate tools when tired, intoxicated or when taking medications that cause drowsiness.
6. Keep work area clean. Cluttered work areas invite accidents.
7. Work area should be properly lit.
8. Keep visitors at a safe distance from work area.
9. Keep children out of workplace. Make

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workshop childproof. Use padlocks to prevent any unintentional use of tools.

10. Assemble only according to these instructions. Improper assembly can create hazards.

11. When tools are not in use, store them in a dry, secure place out of the reach of children. Inspect the tools prior to storage and before reuse.

12. Maintain product labels and nameplates. These carry important safety information.

⚠ WARNING

The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be used by the operator.

OPERATING PROCEDURES

⚠ NOTE

The Universal Bender must be clamped to a solid workbench or affixed in the T-slot of a stable machine tool.

To Make Eyes and Centered Eyes:

1. Attach the Handle (#17) to the Working Plate (#2) using the 1/2" Shaft (#10) with or without the 1" Circle (#14), the 1/4" Shaft (#11), or the 3/16" Shaft depending upon your desired result. Secure the shaft with the Hex Head Screw (#22). When you are standing opposite the Vise Control Knob (#13), the handle should be to your right and as far as possible against the body of the bender.

2. Put the material you wish to bend in

between the selected shaft and the Vise (#6) and clamp it down as shown in Figure 1.

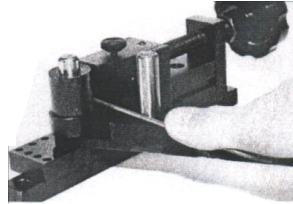


Figure 1

3. Put the Short Shaft (#9) into one of the handle's holes. Use the hole as close to the bender as the material will permit.

4. Hold the material lightly with your thumb to ensure parallel results (if desired).

5. Pull the handle in a clockwise direction for a 1/4 turn. This should result in a 90degree bender. If desired, you may insert the Stop Pin (#16) at the appropriate hole for repetitive bends. Typically, this will be the hole at the front of the bender (furthest away from the Vise Control Knob), second from the right as shown in Figure 2.

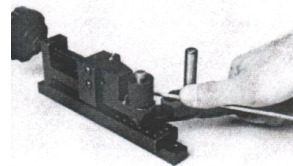


Figure 2

6. Loosen the vise. Position the material so that your bend is opposite the handle when it is in the starting position. The straight part of the material should be extending out towards the handle; a slight amount of the bend should be clamped when the vise is tightened.

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7. Re-clamp the material. Continue the above process until the material makes one full revolution. A slight over bending on the final step is required due to spring back, as shown in Figure 3.

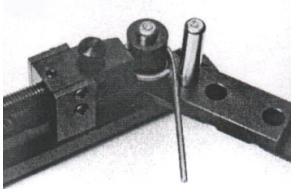


Figure 3

8. If you are working with heavy gauge wire, it may be necessary to use the Sharp Angle Plate (#15) to prevent slipping. If this becomes necessary, it should be put on its side with the angle portion facing up with one side of the angle facing the vise and the other the shaft being used, as shown in Figure 4.

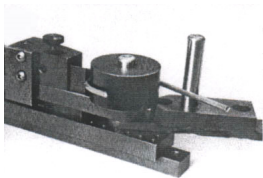


Figure 4

9. If you wish to center the eye, position the handle so that the material is on the opposite side of the handle. This will allow the handle to be moved counterclockwise.

10. Re-clamp the material in such a way that the straight section is at right angles to the vise.

11. Move the handle counterclockwise until it meets the bender, as shown in Figure 5.

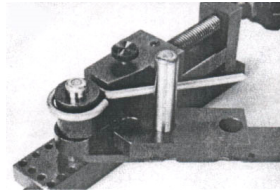


Figure 5

Bending Coils and Loops:

1. Repeat the top seven steps.
2. For loops and coils, you must lift the material slightly on the third bend to allow it to rise above the already bent material as shown in Figure 6.

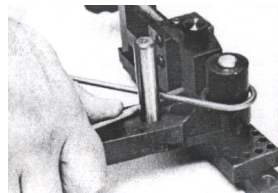


Figure 6

3. If you are doing coils, you may want to use a spacer for the repetitive bends to ensure that the spaces between the loops are even and regular as shown in Figure 7.

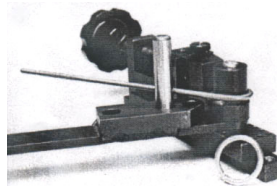


Figure 7

To Make "S" Shapes:

1. Use the 1" Circle with the 1/2" Shaft on the body as described in step 1 of "Eyes and Centered Eyes".

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2. Put the Sharp Angle Plate onto the short shaft on the handle as shown in Figure 8.

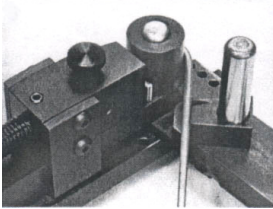


Figure 8

of stock you need. Tighten the gauge clamp (#24) as shown in Figure 10.

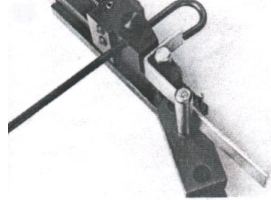


Figure 10

3. Use a short section of stock approximately 2-3/4" to 3" in length. Clamp your stock in the vise so that the edge of the material is even with the edge of the circle.

4. Make a complete clockwise bend.

5. Leaving the handle in the left most position, move the material so that the first loop is on the angled side of the vise's jaw and the edge of the stock is even with the edge of the circle as shown in Figure 9.

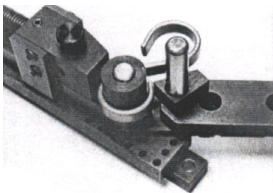


Figure 9

3. Use the gauge and the stop pin when you need to make squares. It will enhance your final results immensely as shown in Figure 11.

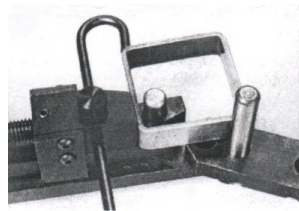


Figure 11

6. Make a complete counterclockwise bend

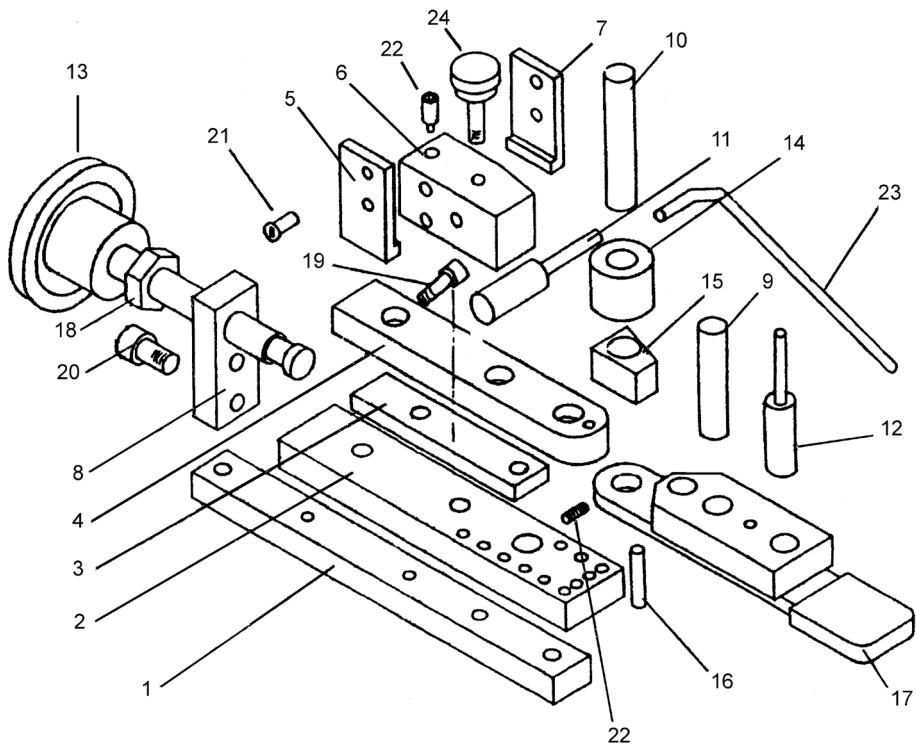
Using the Gauge:

1. The gauge (#23) is used when you need more than one piece bent at precisely the same length.

2. Simply insert the gauge into the side of the bender so that the end of it is the exact distance away from the bender for the length

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Drawing



Model MUB-1

Parts List

Ref.No.	Description	QTY
1	Base	1
2	Working Plate	1
3	Small Plate	1
4	Slide Track	1
5	Vise Body	1
6	Right Vise Plate	1
7	Left Vise Plate	1
8	Connecting Plate	1
9	Short Shaft	1
10	1/2" Shaft	1
11	1/4" Shaft	1
12	3/16" Shaft	1
13	Vise Control Knob	1
14	1" Circle	1
15	Angle Plate	1
16	Stop Pin	1
17	Handle	1
18	M12 Cap Nut	1
19	M6 x 35 Screw	1
20	Connecting Screw	2
21	M5 x 12 Screw	4
22	M8 x 9 Hex Head Screw	2
23	Gauge	1
24	Gauge Clamp	1

SERVICE RECORD

KAKA Industrial®

Date	Maintenance performed	Repair components require

NOTES

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If you have any questions about the use of this product, please contact the nearest one to you as below:

KAKA INDUSTRIAL LLC
Mail:
info@kakaindustrial.com
Add: 4200 Steve Reynolds
Blvd Ste 6 Norcross,
GA 30093
U.S.A.

KAKA INDUSTRIAL LTD
Mail:
echo@kakaindustrial.com
Add: 3143 Underhill Avenue
Burnaby,
B.C V5A3C8
Canada

KANG INDUSTRIAL PTY LTD
Mail:
kang@kakaindustrial.com
Add: 3 Wayne Court
Dandenong,
VIC 3175
Australia