

# KAKA Industrial®

## Unpacking

The Rotary Machine 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

KAKA Rotary Machine is hand operated and will form sheet metal up to 22 gauge (0.03 thick) mild steel (or equivalent). The rotary machine is constructed of cast iron and steel ensuring minimum deflection of the workpiece during forming operations. Six die sets are included allowing the following operations to be performed: large and small turning, burring, wiring, ogee beading and crimping.



Stock No. ....173205  
 Model.....RM-08

Capacity.....22 Ga. (0.8 mm)  
 Throat depth.....7" (177 mm)  
 Packing size.....20"x18"x7" (50x45x16 cm)  
 N.W./G.W. ....48/53 lbs (22/24 kg)

## Important

Rotary machine and dies are coated with a protectant. To ensure proper fit and operation, remove coating. Coating is easily removed with mild solvents, such as mineral spirits, and soft cloth. Avoid getting cleaning solution on paint or any of the rubber or plastic parts. Solvents may deteriorate these finishes. Use soap and water on paint, plastic or rubber components. After cleaning, cover all exposed surfaces with a light coating of oil.

**▲ WARNING**  
*Never use highly volatile solvents.  
 Non-flammable solvents are recommended to avoid possible fire hazard.*

## SAVE THESE INSTRUCTIONS

Thank you for purchasing our RM-08 Rotary 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.

# Model RM-08

## 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.*

### ⚠ WARNING

*For your own safety, read all of the instructions and precautions before operating tool.*

## 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 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.*

## KNOW HOW TO USE TOOL

1. Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
2. Keep hands out of path of dies and clear from male and female dies.
3. The maximum capacity of this machine is 22 gauge (0.030") mild steel or equivalent. Exceeding capacity may be dangerous to operator and damage may occur to machine.
4. Bolt machine to sturdy stand that is bolted to floor to prevent sliding or tipping of machine.

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## Assembly

The rotary machine comes assembled as one unit with one die set attached. Additional parts which need to be fastened to the tool should be located and accounted for before assembling:

- A. Base assembly
- B. Crank handle assembly
- C. Adjusting handle assembly
- D. Wrench
- E. Spacers, 2 each
- F. Small turning die set
- G. Ogee bead die set
- H. Burring die set
- I. Large turning die set
- J. Wiring die set
- K. Crimping die set

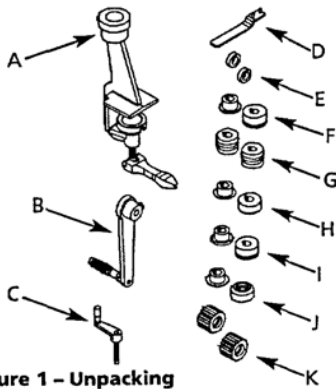


Figure 1 - Unpacking

Machine should be installed on a level surface, with proper lighting. Machine is to be bench mounted. Be sure to provide clearance for crank arm rotation. Area around machine should be clear of scraps, oil or dirt. Apply a suitable non-skid material to floor.

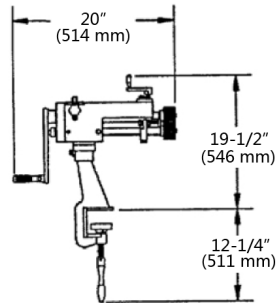


Figure 2 - Dimensions

### MOUNT BASE ASSEMBLY

Mount base assembly (#1-#7) to a suitable area on workbench. The thickness of the mounting surface cannot exceed 2". Secure in position using clamp handle (#4).

### MOUNT ROTARY MACHINE TO BASE

Mount rotary machine body (#18) to base (#1). Secure with hex head bolt (#7).

### MOUNT HANDLE TO MACHINE

Mount the crank assembly (#8-#12) to the driving shaft (#53). Secure with hex head bolt (#8). Mount the adjusting handle assembly (#38-#40, #60-#61) into top of body (#18).

## Operation

Refer to Figures 3. Be sure to keep hands clear of forming dies when rotating crank handle. The maximum capacity of the machine is 22 gauge (0.030") mild steel or equivalent. Below is an equivalency chart for use when working with material other than mild steel:

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## EQUIVALENCY CHART

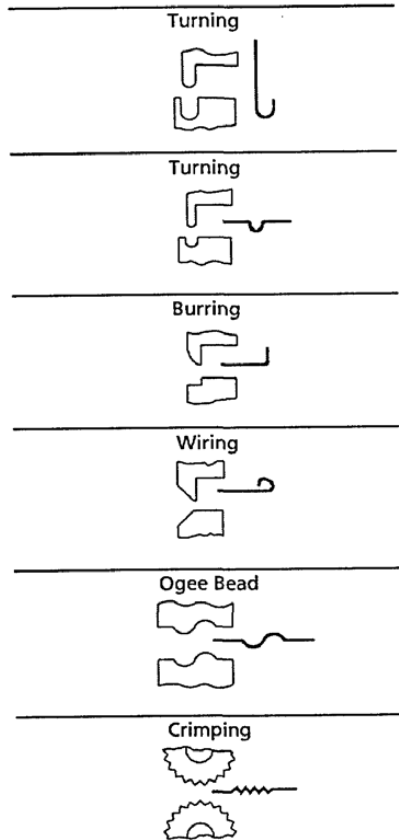
Mild steel .....	0.030"
Stainless steel .....	0.020"
SAE 1050 cold rolled steel ...	0.024"
Aluminum .....	0.055"
Soft brass .....	0.046"
½ Hard brass .....	0.030"
Annealed phosphor bronze...	0.034"
Soft copper .....	0.046"
Hard copper .....	0.034"

1. Select the die set required for the operation to be performed.
2. Place spacers (#50), dies and retaining nuts (#52) onto the driving and driven shafts (#53 and #47). Tighten the retaining nuts with wrench (#59).

**NOTE:** Some die sets require two spacers on each shaft.

3. Adjust the position of the upper die according to thickness of the workpiece by using the adjusting handle (#60).
4. Adjust the horizontal position of the upper die by rotating the adjusting nut (#27).
5. Adjust the stop gauge (#10 and #15) or the stop plate (#14) to the required size. The required size is the distance the form will be from the edge of the metal. Use the stop gauge for sheet and use the stop plate for cylinders. The stop gauge can be finely adjusted using the thumb nuts (#13).

6. Insert metal between dies and slowly rotate the crank arm (#9). Check the workpiece. It may be necessary to fine tune the adjustments made in steps 3 and 4. Repeat steps 3 and 4 until the correct form is obtained.



**Figure 3 – Profiles of Roll Dies included with Rotary Machine**

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## Maintenance

1. Consult manual for specific maintaining and adjusting procedures.
2. Keep tool lubricated and clean for safest operation.
3. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before using machine.
4. Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
5. Check for damaged parts. Check for alignment of moving parts, binding, breakage, and mounting or any other condition that may affect a tool's operation.
6. A guard or other damaged part should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order repair parts.)

## Lubrication

1. All exposed iron surfaces should be coated with light oil to prevent rusting. Use a multi-purpose or bearing grease for lubrication.
2. The adjusting block (#35) should be greased.
3. Oil the driving shaft (#53) through the oil ports (#17 and #62) monthly.

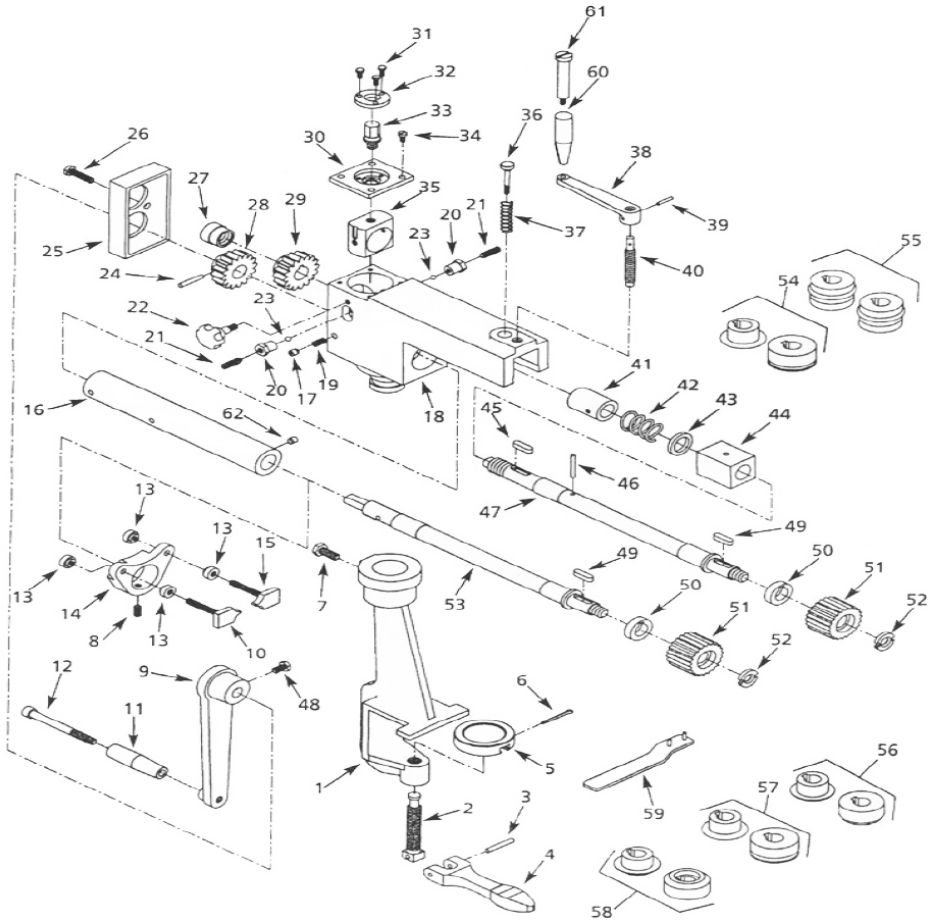
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## Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Dies cut through metal	1. Dies are too close together	1. Adjust die position using adjusting handle (# 60)
Dies do not make the form correctly	1. Dies are improperly adjusted 2. Thumb screw loose (# 36) 3. Workpiece material too thick	1. Adjust die position using adjusting nut (# 27) 2. Tighten thumb screw 3. Do not exceed machine capacity of 0.030" mild steel or equivalent, See Equivalency Chart
Crank arm difficult to turn	1. Adjusting block (# 35) loose or not in proper position 2. Improper lubrication	1. Adjust set screws (# 21) and secure by tightening lock nuts (# 20). Loosen knob (# 22) and adjust position of adjusting block (# 35) by turning adjusting bolts (# 33). Retighten knob (Ref. No 22). 2. Lubrication properly, See Lubrication

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## Drawing



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## Parts List

Ref. No.	Description	QTY.	Ref. No.	Description	QTY.
1	Base	1	17	Oil port	1
2	Clamp bolt M16X100	1	18	Body	1
3	6 x 45mm Dowel Pin	1	19	Set Screw (M8 x 10)	1
4	Clamp handle	1	20	Lock Nut (M8 x 20)	2
5	Clamp head	1	21	Set Screw (M8 x 10)	2
6	3 x 36 mm Cotter pin	1	22	Knob	1
7	10-1.50 x 25mm Dog point bolt	1	23	6mm Steel ball	2
8	8-1.25 x 8mm Hex head bolt	1	24	5 x 5.6 x 30mm Taper Pin	1
9	Crank arm	1	25	Cover	1
10	Stop gauge (left)	1	26	8-1.25 x 35mm Hex head bolt	2
11	Handle	1	27	Adjusting nut	1
12	Handle bolt	1	28	Driving gear	1
13	Thumb nut M8	4	29	Driven gear	1
14	Stop plate	1	30	Square plate	1
15	Stop gauge (right)	1	31	5-0.8 x 8mm Pan head screw	3
16	Shaft sleeve	1	32	Round plate	1



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## Parts List

Ref. No.	Description	QTY.	Ref. No.	Description	QTY.
33	Adjusting bolt	1	48	8-1.25 x 20mm Hex head bolt	1
34	6-1.0 x 16mm Flat head screw	4	49	6 x6 25mm Key	2
35	Adjusting block	1	50	Spacer	4
36	Thumb screw (M6 x 55)	1	51	Crimping roll dies	2
37	Spring	1	52	Retaining nut	1
38	Adjusting handle	1	53	Driving shaft	1
39	3 x 3.4x 22mm Taper Pin	1	54	Small turning roll dies	2
40	Adjusting Screw	1	55	Ogee bead roll dies	2
41	Sleeve	1	56	Burring roll dies	2
42	Spring	1	57	Large turning roll dies	2
43	Collar	1	58	Wiring roll dies	2
44	Adjusting block	1	59	Wrench	1
45	6 x6 20mm key	1	60	Handle	1
46	5 x 35mm Dowel Pin	1	61	Handle bolt	1
47	Driven shaft	1	62	Oil port	1





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

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