

KAKA Industrial®

Unpacking

The 4" THROATLESS SHEAR 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

Your KAKA 4" THROATLESS SHEAR for metal cutting is precision designed and manufactured to allow precise control when making straight or intricately curved cuts of any length, in any direction. Hardened, finely honed blades produce clean, burr-free cuts in aluminum, steel and other mild metals.

The gear-driven design delivers maximum shearing power with minimal handle force.



Stock No.	172504
Model.....	MMS-4
Max. Capacity Mild Steel.....	14 Ga. (2.0 mm)
Max. Capacity Stainless Steel.....	18 Ga. (1.2 mm)
Width.....	2.76" (70 mm)
Packing size.....	20"x13"x9" (51X33X22 cm)
N.W./G.W.....	16/17 lbs (7/8 kg)

Important

Blades 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 a 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 MMS-4 4" throatless shear 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.*

Model MMS-4

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.

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 shear blades.
3. The Max. shearing thickness of this machine is 14 Ga. (2.0mm) Mild Steel. Exceeding capacity may be dangerous to operator and damage may occur to the machine.
4. Bolt machine to floor or sturdy stand that is bolted to floor to prevent sliding or tipping of machine.
5. Strenuous physical force may need to be applied to the Throatless Shear during use. Failure to ensure proper footing can quickly result in a fall which could inflict serious personal injury or property damage. Always work in a clean, uncluttered environment.
6. Be sure there is sufficient working room around the tool to allow for safe handling of various sizes of metal.
7. The KAKA Throatless Shear was specifically designed to be operated by one person only. Never have one person operate the Handle while another handles the workpiece or serious injury could occur.
8. Frequently inspect Blades. If cracks or chips develop, discontinue tool use immediately and replace damaged Blades.

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.

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⚠ WARNING

1. This tool has **EXTREMELY SHARP** cutting blades with amplified leverage on the upper blade which can quickly cause severe injury or loss of fingers! Keep fingers and hands away from moving parts when operating.

2. Always place the handle in the **DOWN** position with the Locking Pin inserted through both the Upper Blade Housing and the Body in the **CLOSED** position (Figure 1) when not in use. The weight of the handle, left in the up position, can cause the upper blade to suddenly and unexpectedly drop with great force resulting in severe injury or loss of fingers.

3. Handling sharp metal can cause serious cuts. Wear thick, well-fitting work gloves to prevent cuts from handling sharp metal.

4. Metal particles can be ejected from the material when cutting. Sheet metal edges and corners are sharp and can injure eyes.

Always wear ANSI approved eye protection when operating this tool.

3. The use of 1/2" through bolts & nuts or longer lag screws with substantial washers and attachment to a structural member is absolutely necessary.

⚠ CAUTION

Always keep the handle in the down position and the Body in the **CLOSED** position (Figure 1) when not cutting. The weight of the handle can cause the upper blade to suddenly and unexpectedly drop.



Figure 1

Assembly

1. The KAKA Throatless Shear must be securely mounted on a heavy, solid workbench, stand, floor etc., capable of holding the static weight of the unit plus the stresses from operation.

2. Place the Throatless Shear over the chosen location then mark mounting hole locations by tracing holes in the base.

⚠ CAUTION

Check for the presence of electrical, air or other utility lines under the mounting surface before drilling mounting holes.

4. Remove the supplied bolt #3 from the Handle Stub #5, carefully align the mounting hole of the Handle #2 over the threaded hole in the Stub, thread bolt through hole in Handle and into the Stub then tighten using a 13mm wrench (not included) (Figure 2).



Figure 2

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Operation

1. **For Maximum Control and Cutting Force**, begin all cuts by raising the handle #2 fully and placing the edge of the metal at the point at which the blades #8 & #12 meet.

2. **For Straight Cuts**; keep the metal stationary and flat against shear deck as you draw the handle #2 downward. As the 1st cut has been done and the upper blade #12 has reached the low point, raise the handle then move the material forward placing the uncut area once again at the blade intersection point.

3. **For Curved Cuts**; turn the material left or right to make curved cuts as needed (**NOTE: Do not move material forward as you cut**). As the upper blade #12 reaches the low point, raise the handle then move the material forward placing the uncut area once again at the blade intersection point. Resume left or right material movement.

⚠ WARNING

The weight of the handle can cause the upper blade to suddenly and unexpectedly drop. When cuts are done, always place the handle in the DOWN position.

BLADE ADJUSTMENT

NOTES

- The upper blade is fixed in place while the lower blade is adjustable.
- The ideal blade gap is equal to 1/4 of the subject material thickness.

For example: 14-gauge steel will work best with a blade gap of 0.019" [0.48mm], while 20 gauge should be 0.0094" [0.23mm].

- An alternative method is to gradually

decrease blade gap while cutting paper. The paper should cut cleanly without pulls, tearing or folding.

⚠ CAUTION

Do not allow blades to come into full contact with each other or permanent blade damage can occur.

To measure: use a good quality feeler gauge and measure at the blade intersection point with the handle at the halfway down position (Figure 3).

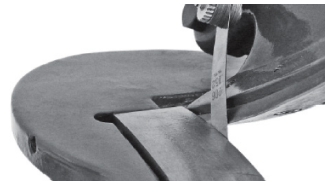


Figure 3

TO ADJUST

1. Loosen the bolt #10 securing the Lower Blade Clamp at the left front of the tool (Figure 4).



Figure 4

2. Using a small, straight bladed screwdriver, Turn the two set screws #15 & #17 (Figure 5) inward (clockwise) to decrease blade gap, turn outward (counter-clockwise) while applying a slight outward pressure to increase blade gap.

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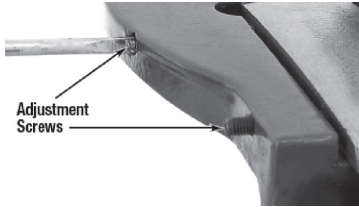


Figure 5

NOTE: Turn screws an equal amount and no more than 1/4 turn at a time while making adjustments.

3. Re-tighten blade clamp bolt #10.

BLADE REPLACEMENT

⚠ WARNING
The blades are extremely sharp! Use extreme care when handling to avoid severe cuts or loss of fingers!

UPPER BLADE

Removal

1. Raise Drive Gear Stub/Handle into the up position.
2. Remove Handle.

⚠ WARNING
Handle MUST be removed prior to blade removal to reduce the chance of blade accidentally falling.

3. Loosen and remove 3 Phillips blade retaining screws #13 from the underside of Upper Blade #12 (Figure 7) and carefully remove blade.

Installation

1. While holding Lower Blade in place, replace 3

- Phillips Screws and tighten securely.
 2. Lower Drive Gear Stub and replace handle.

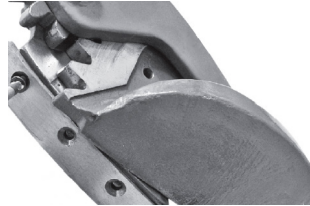


Figure 7

LOWER BLADE

Removal

1. Remove Handle.

⚠ WARNING
Handle MUST be removed prior to blade removal to reduce the chance of blade accidentally falling.

2. Loosen the bolt #10 securing the Lower Blade Clamp #9 (Figure 8) at the left front of the tool.
3. Carefully remove Blade.

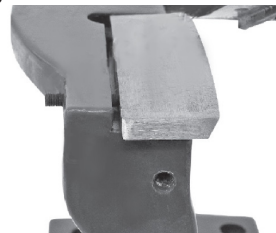


Figure 8

Installation

1. Replace blade and exert slight pressure against adjusting screws.
2. Tighten Lower Blade Clamp bolt.

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NOTE: Blade replacement normally requires a re-adjustment of the lower blade due to blade manufacturing tolerance variations. Adjust per Blade Adjustment procedure.

Maintenance

NOTE: Maintenance should be performed before each use.

1. Lower the Upper Blade assembly, insert the Locking Pin through both the Upper Blade Housing and the Body in the CLOSED position (Figure 1) and Remove Handle.

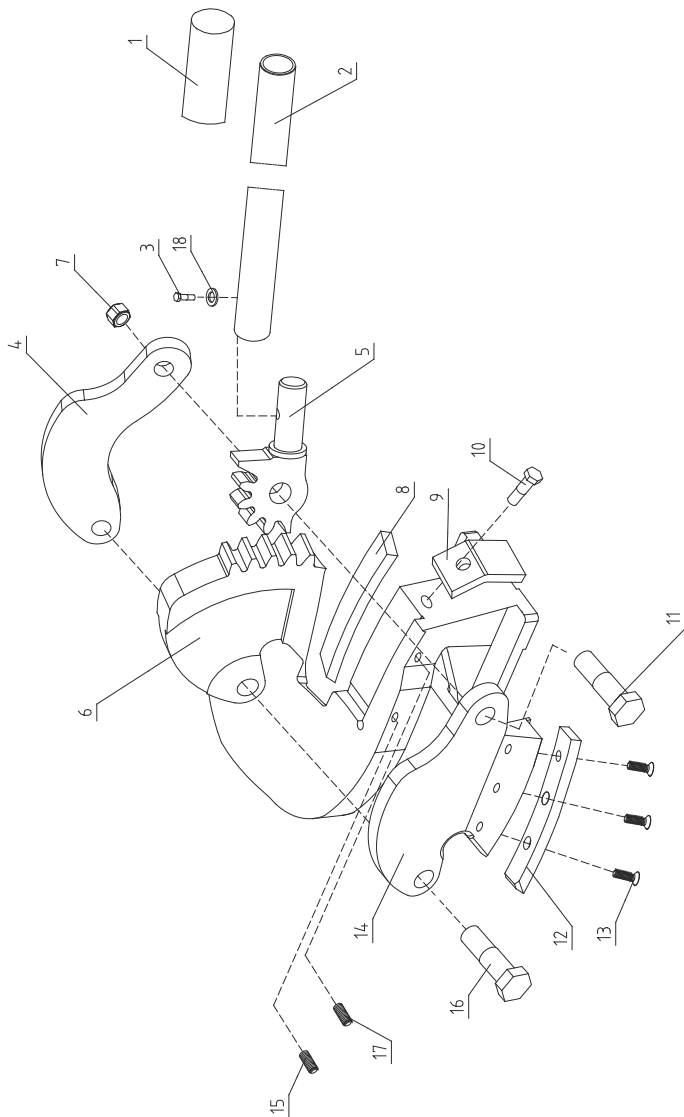
2. Apply a thin film of light oil or rust-preventive to all bare steel areas.
3. Store in a clean, dust-free, dry, dampness free area preferably covered with plastic sheeting.
4. Check tightness of all hardware.
5. Check operation for binding. Lubricate pivot points and gears periodically with a medium bodied lubricating oil.
6. Inspect Blades for cracks, damage or premature wear. Replace if damaged.
7. Clean dirt and debris from Shear Deck.

Trouble Shooting

PROBLEM	CAUSE	CORRECTION
Produces a Rough, Jagged Cut or Fails to Cut	Worn Blades	Replace Blades.
	Material Too Thick	Refer to Maximum Material Specs.
	Blades out of Adjustment	Follow Adjustment Procedure.

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Drawing



Model MMS-4

Parts List

Ref.No.	Description	QTY.
1	Handle Grip	1
2	Handle	1
3	Bolt M8X20	1
4	Connecting Arm	1
5	Handle Stub	1
6	Base	1
7	Locknut M12	1
8	Lower Blade	1
9	Lower Blade Clamp	1
10	Bolt M8X30	1
11	Bolt M12X45	1
12	Upper Blade	1
13	Bolt M5X12	3
14	Holder of Upper Dies	1
15	Screw M5X35	1
16	Bolt M12X40	1
17	Screw M5X25	1
18	Washer 8	1

Stock No: 172504
Edition 2 12/2018
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