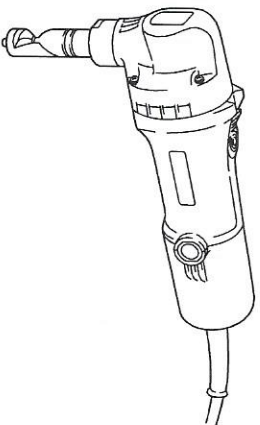




**INSTRUCTION MANUAL
MANUEL D'INSTRUCTION
MANUAL DE INSTRUCCIONES**

**Nibbler
Grignoteuse
Roedora
JN1601**



**DOUBLE INSULATION
DOUBLE ISOLATION
DOBLE AISLAMIENTO**

**IMPORTANT: Read Before Using.
IMPORTANT : Lire avant usage.
IMPORTANTE: Lea antes de usar.**

ENGLISH (Original instructions)

SPECIFICATIONS

Model		JN1601
Max. cutting capacities	Mild steel	1.6 mm / 1/16 ga
	Stainless	1.2 mm / 1/16 ga
	Aluminum	2.5 mm / 1/16 ga
Min. cutting radius	Outside edge	50 mm (2")
	Inside edge	45 mm (1-25/32")
Strokes per minute		2,200 /min
Overall length		261 mm (10-1/4")
Net weight		1.6 kg (3.6 lbs)

- Due to our continuing programme of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- Weight according to EPTA-Procedure 01/2003

General Power Tool Safety Warnings

WARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.
4. **Electrical safety**
Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
5. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **Do not abuse the cord.** Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
8. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
9. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of an GFCI reduces the risk of electric shock.
10. **Personal safety**
Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
11. **Use personal protective equipment.** Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
12. **Prevent unintentional starting.** Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or engaging power tools that have the switch on invites accidents.
13. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
14. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
15. **Dress properly.** Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
16. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
17. **Power tool use and care**
Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
18. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

19. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
20. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
21. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
22. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
23. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
24. Service person using only identical replacement parts. This will ensure that the safety of the power tool is maintained from those intended could result in a hazardous situation.
25. Follow instruction for lubricating and changing accessories.
26. Keep handles dry, clean and free from oil and grease. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Table 1: Minimum gage for cord

Ampere Rating	Volts		
	120V	25 ft.	50 ft.
More Than	Total length of cord in feet		
Not More Than	AWG		
0	6	18	16
6	10	18	16
10	12	16	16
12	16	14	12
16	16	12	Not Recommended

NIBBLER SAFETY WARNINGS



1. Hold the tool firmly.
2. Secure the workpiece firmly.
3. Keep hands away from moving parts.
4. Edges and chips of the workpiece are sharp. Wear gloves. It is also recommended that you put on thickly bottomed shoes to prevent injury. Do not put the tool on the chips of the workpiece. Otherwise it can cause damage and trouble on the tool.
5. Do not leave the tool running. Operate the tool only when hand-held.
6. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
7. Do not touch the punch, die or the workpiece immediately after operation; they may be extremely hot and could burn your skin.
8. Avoid cutting electrical wires. It can cause serious accident by electric shock.

SAVE THESE INSTRUCTIONS.

⚠WARNING: DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

Symbols

The followings show the symbols used for tool.

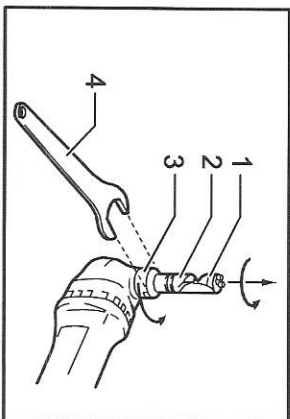
V	volts
A	amperes
Hz	hertz
	alternating current
n_s	no load speed
	Class II Construction
\dots /min r/min	revolutions or reciprocation per minute

FUNCTIONAL DESCRIPTION

⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Changing the die position

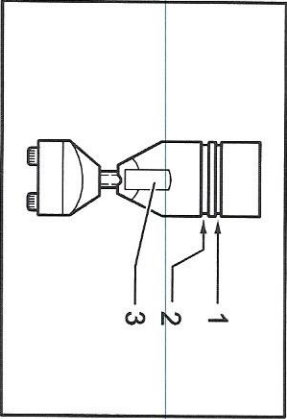


1. Die 2. Die holder 3. Lock nut 4. Wrench

The die position can be changed 360°. To change it, proceed as follows.

1. Loosen the lock nut with the wrench provided.
 2. Pull the die holder slightly and turn it to the desired position for operation.
 3. Tighten the lock nut to secure the die holder in the desired position.
- There are four positive stops at 90° each: 0°, 90° left and right and 180°. To position the die to any of these positive stops:
1. Loosen the lock nut with the wrench provided.
 2. Pull the die holder slightly and depress lightly while turning it to the desired position. The die holder will lock into one of the positive stop positions as desired.
 3. Turn the die holder slightly to make sure that it is positively locked into position.
 4. Tighten the lock nut to secure the die holder.

Permissible cutting thickness



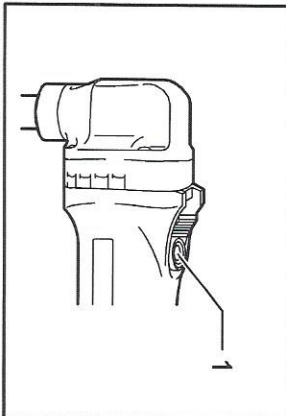
1. Gauge for cutting stainless: 1.2 mm (3/64")
2. Gauge for cutting mild steel: 1.6 mm (1/16")
3. Notch

The thickness of material to be cut depends upon the tensile strength of the material itself. The groove on the die holder acts as a thickness gauge for allowable cutting thickness. Do not attempt to cut any material which will not fit into this groove.

Cutting line

The notch in the die holder indicates your cutting line. Its width is equal to the cutting width. Align the notch to the cutting line on the workpiece when cutting.

Switch action



1. Switch lever

⚠CAUTION:

- Before plugging in the tool, always check to see that the switch actuates properly and returns to the "OFF" position when the rear of the switch lever is depressed.
- Switch can be locked in "ON" position for ease of operator comfort during extended use. Apply caution when locking tool in "ON" position and maintain firm grasp on tool.

To switch on, depress the rear of the switch lever and push it forward. Then depress the front of the switch lever to lock it.

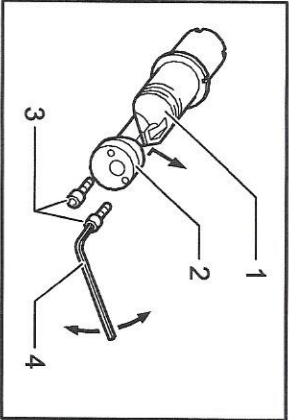
To switch off, depress the rear of the switch lever.

ASSEMBLY

⚠CAUTION:

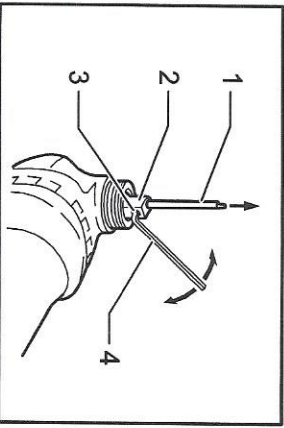
- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Removing or installing the punch and die



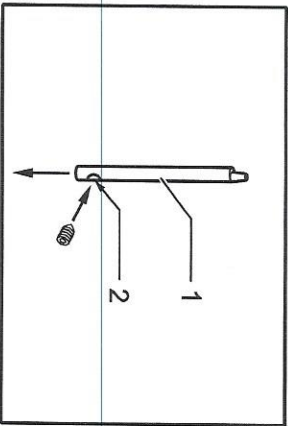
▶ 1. Die holder 2. Die 3. Bolts 4. Hex wrench

Always replace the punch and die as a set. To remove the punch and die, loosen the lock nut with the wrench. Remove the die holder from the tool. Use the hex wrench to loosen the bolts which secure the die. Remove the die from the die holder. Use the hex wrench to loosen the screw which secures the punch. Pull the punch out of the punch holder.



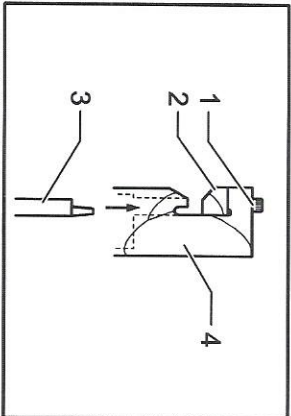
▶ 1. Punch 2. Punch holder 3. Screw 4. Hex wrench

To install the punch and die, insert the punch into the punch holder so that the notch in the punch faces toward the screw. Tighten the screw to secure the punch. Install the die on the die holder. Tighten the bolts to secure the die.



▶ 1. Punch 2. Notch

Then install the die holder on the tool so that the punch is inserted through the hole in the die holder. Tighten the lock nut to secure the die holder. After replacing the punch and die, lubricate them with machine oil and run the tool for a while.



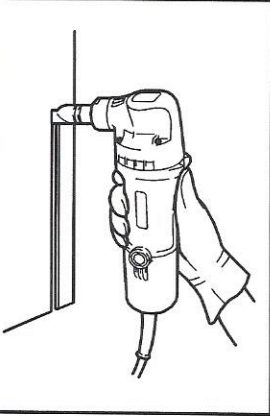
▶ 1. Bolts 2. Die 3. Punch 4. Die holder

OPERATION

Pre-lubrication

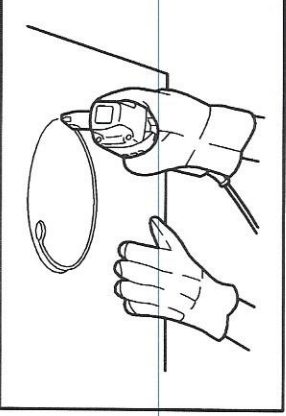
Coat the cutting line with machine oil to increase the punch and die service life. This is particularly important when cutting aluminum.

Cutting method



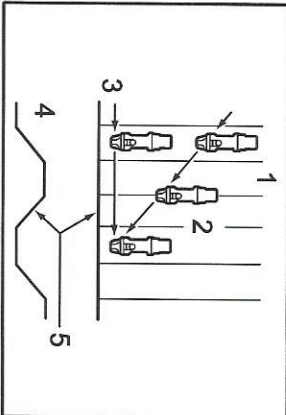
Hold the tool so that the cutting head is at a right angle (90°) to the workpiece being cut. Move the tool gently in the cutting direction.

Cutouts



Cutouts can be done by first opening a round hole over 21 mm (13/16") in diameter which the cutting head can be inserted into.

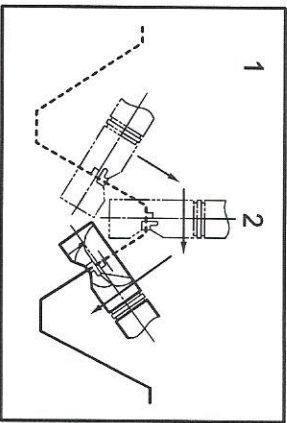
Cutting the corrugated or trapezoidal sheet metals



▶ 1. From the top view 2. Cutting at an angle to grooves 3. Cutting perpendicular to grooves 4. From the side view 5. Corrugated or trapezoidal sheet metal

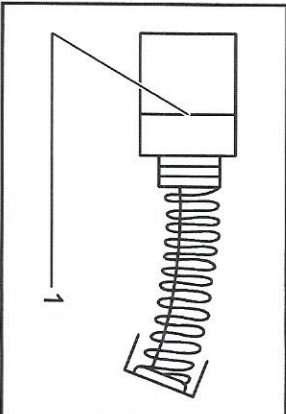
Set the die position so that the die faces the cutting direction either when cutting at an angle or perpendicular grooves in corrugated or trapezoidal sheet metals.

Always hold the tool body parallel to the grooves with the cutting head at a right angle (90°) to the cutting surface as shown in the figure.



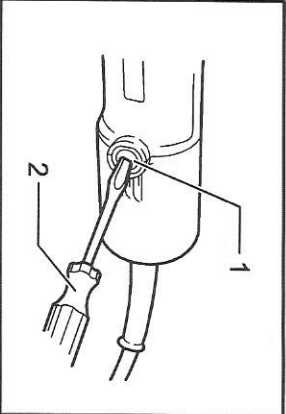
▶ 1. From the side view 2. Cutting head should be at a right angle (90°) to cutting surface.

Replacing carbon brushes



▶ 1. Limit mark

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes. Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



▶ 1. Brush holder cap 2. Screwdriver

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

OPTIONAL ACCESSORIES

CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Die
- Punch
- Hex wrench
- Wrench 32

NOTE: Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

MAKITA LIMITED WARRANTY

Please refer to the annexed warranty sheet for the most current warranty terms applicable to this product. If annexed warranty sheet is not available, refer to the warranty details set forth at below website for your respective country.

United States of America: www.makitaltools.com
Canada: www.makita.ca
Other countries: www.makita.com