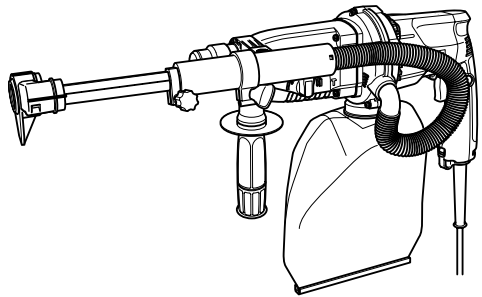


INSTRUCTION MANUAL




# Rotary Hammer With Dust Extraction

HR2432



005873

 DOUBLE INSULATION

**⚠ WARNING:**

For your personal safety, READ and UNDERSTAND before using.  
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

## ENGLISH (Original instructions)

# SPECIFICATIONS

Model		HR2432	
Capacities	Concrete	Tungsten-carbide tipped bit	24 mm
		Core bit	54 mm
		Diamond core bit	65 mm
	Steel	13 mm	
	Wood	32 mm	
Dust extraction capacities	Max. drilling depth		100 mm
	(Adjusting depth)		(0 - 100 mm)
	Max. bit diameter		25 mm
	Max. bit length		270 mm
	Dust bag capacity		3.7 L
No load speed (min <sup>-1</sup> )		0 - 1,000	
Blows per minute		0 - 4,500	
Overall length		407 mm	
Net weight		3.2 kg	
Safety class		II/III	

- 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

END201-5

ENF002-1

## Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



- Read instruction manual.



- DOUBLE INSULATION



- Only for EU countries  
Do not dispose of electric equipment together with household waste material! In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

ENE043-1

## Intended use

The tool is intended for hammer drilling and drilling in brick, concrete and stone as well as for chiselling work. It is also suitable for drilling without impact in wood, metal, ceramic and plastic.

## Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

ENG102-3

## Noise

The typical A-weighted noise level determined according to EN60745:

- Sound pressure level ( $L_{pA}$ ) : 87 dB(A)
- Sound power level ( $L_{WA}$ ) : 98 dB(A)
- Uncertainty (K) : 3 dB(A)

## Wear ear protection

ENG215-2

## Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745:

- Work mode : chiseling function  
Vibration emission ( $a_{h,CH&EQ}$ ) : 9.5 m/s<sup>2</sup>  
Uncertainty (K) : 1.5 m/s<sup>2</sup>

ENG303-2

- Work mode : hammer drilling into concrete  
Vibration emission ( $a_{h,HD}$ ) : 13.5 m/s<sup>2</sup>  
Uncertainty (K) : 1.5 m/s<sup>2</sup>

ENG301-1

- Work mode : drilling into metal  
Vibration emission ( $a_{h,D}$ ) : 7.5 m/s<sup>2</sup>  
Uncertainty (K) : 1.5 m/s<sup>2</sup>

- The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.
- The declared vibration emission value may also be used in a preliminary assessment of exposure.

**⚠ WARNING:**

- The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.
- Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

ENH101-13

**For European countries only**

**EC Declaration of Conformity**

**We Makita Corporation as the responsible manufacturer declare that the following Makita machine(s):**

Designation of Machine:  
Rotary Hammer With Dust Extraction

Model No./ Type: HR2432  
are of series production and

**Conforms to the following European Directives:**

98/37/EC until 28th December 2009 and then with  
2006/42/EC from 29th December 2009

And are manufactured in accordance with the following standards or standardised documents:

EN60745

The technical documentation is kept by our authorised representative in Europe who is:

Makita International Europe Ltd,  
Michigan, Drive, Tongwell,  
Milton Keynes, MK15 8JD, England

30th January 2009



Tomoyasu Kato  
Director

Makita Corporation  
3-11-8, Sumiyoshi-cho,  
Anjo, Aichi, JAPAN

000230

## 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.

#### Work area safety

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.

#### Electrical safety

4. **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 residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
10. **Use of power supply via a RCD with a rated residual current of 30mA or less is always recommended.**

## Personal safety

11. **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.
  12. **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.
  13. **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 energising power tools that have the switch on invites accidents.
  14. **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.
  15. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
  16. **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.
  17. **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.
- ### Power tool use and care
18. **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.
  19. **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.
  20. **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.
  21. **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.
22. **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.
  23. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
  24. **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.

## Service

25. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
26. **Follow instruction for lubricating and changing accessories.**
27. **Keep handles dry, clean and free from oil and grease.**

GEB007-7

## ROTARY HAMMER SAFETY WARNINGS

1. **Wear ear protectors.** Exposure to noise can cause hearing loss.
2. **Use auxiliary handle(s), if supplied with the tool.** Loss of control can cause personal injury.
3. **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
4. **Wear a hard hat (safety helmet), safety glasses and/or face shield.** Ordinary eye or sun glasses are NOT safety glasses. It is also highly recommended that you wear a dust mask and thickly padded gloves.
5. **Be sure the bit is secured in place before operation.**
6. **Under normal operation, the tool is designed to produce vibration. The screws can come loose easily, causing a breakdown or accident. Check tightness of screws carefully before operation.**
7. **In cold weather or when the tool has not been used for a long time, let the tool warm up for a**

while by operating it under no load. This will loosen up the lubrication. Without proper warm-up, hammering operation is difficult.

8. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
9. Hold the tool firmly with both hands.
10. Keep hands away from moving parts.
11. Do not leave the tool running. Operate the tool only when hand-held.
12. Do not point the tool at any one in the area when operating. The bit could fly out and injure someone seriously.
13. Do not touch the bit or parts close to the bit immediately after operation; they may be extremely hot and could burn your skin.
14. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.

## SAVE THESE INSTRUCTIONS.

### ⚠WARNING:

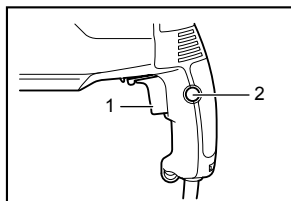
DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

## FUNCTIONAL DESCRIPTION

### ⚠CAUTION:

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

### Switch action



1. Switch trigger
2. Lock button

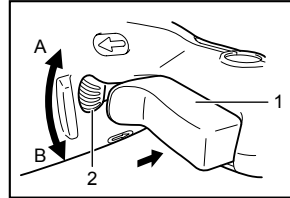
001292

### ⚠CAUTION:

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

To start the tool, simply pull the switch trigger. Tool speed is increased by increasing pressure on the switch trigger. Release the switch trigger to stop. For continuous operation, pull the switch trigger and then push in the lock button. To stop the tool from the locked position, pull the switch trigger fully, then release it.

### Reversing switch action



001293

1. Switch trigger
2. Reversing switch lever

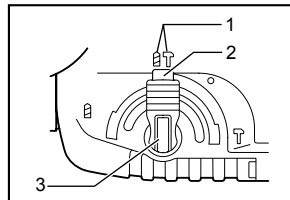
This tool has a reversing switch to change the direction of rotation. Move the reversing switch lever to the ⇐ position (A side) for clockwise rotation or the ⇒ position (B side) for counterclockwise rotation.

### ⚠CAUTION:

- Always check the direction of rotation before operation.
- Use the reversing switch only after the tool comes to a complete stop. Changing the direction of rotation before the tool stops may damage the tool.
- When you operate the tool in counterclockwise rotation, the switch trigger is pulled only halfway and the tool runs at half speed. For counterclockwise rotation, you cannot push in the lock button.


### Selecting the action mode

#### Rotation with hammering

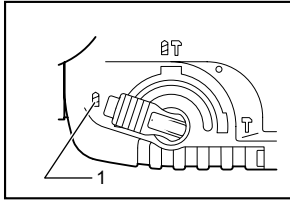


003573

1. Rotation with hammering
2. Lock button
3. Action mode changing knob

For drilling in concrete, masonry, etc., depress the lock button and rotate the action mode changing knob to the  symbol. Use a tungsten-carbide tipped bit.

## Rotation only

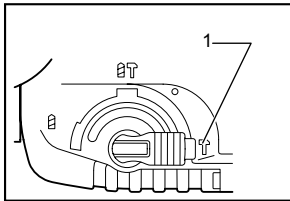


003575

1. Rotation only

For drilling in wood, metal or plastic materials, depress the lock button and rotate the action mode changing knob to the **R** symbol. Use a twist drill bit or wood bit.

## Hammering only



003574

1. Hammering only

For chipping, scaling or demolition operations, depress the lock button and rotate the action mode changing knob to the **H** symbol. Use a bull point, cold chisel, scaling chisel, etc.

## ⚠CAUTION:

- Do not rotate the action mode changing knob when the tool is running under load. The tool will be damaged.
- To avoid rapid wear on the mode change mechanism, be sure that the action mode changing knob is always positively located in one of the three action mode positions.

## Torque limiter

The torque limiter will actuate when a certain torque level is reached. The motor will disengage from the output shaft. When this happens, the bit will stop turning.

## ⚠CAUTION:

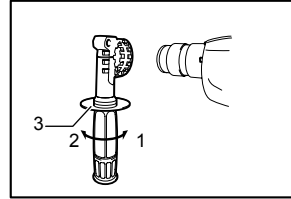
- As soon as the torque limiter actuates, switch off the tool immediately. This will help prevent premature wear of the tool.
- Hole saws cannot be used with this tool. They tend to pinch or catch easily in the hole. This will cause the torque limiter to actuate too frequently.

## ASSEMBLY

### ⚠CAUTION:

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

### Side grip (auxiliary handle)



005874

1. Tighten
2. Loosen
3. Side grip (auxiliary handle)

### ⚠CAUTION:

- Always use the side grip to ensure operating safety.

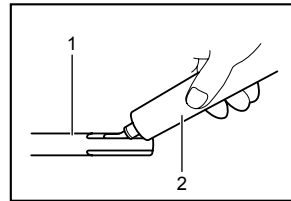
Install the side grip so that the teeth on the grip fit in between the protrusions on the tool barrel. Then tighten the grip by turning clockwise at the desired position. It may be swung 360° so as to be secured at any position.

### Bit grease (optional accessory)

Coat the bit shank head beforehand with a small amount of bit grease (about 0.5 - 1 g).

This chuck lubrication assures smooth action and longer service life.

### Installing or removing the bit



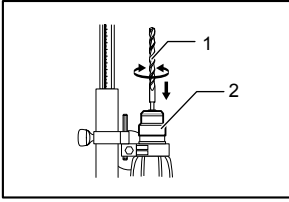
001296

1. Bit shank
2. Bit grease

Clean the bit shank and apply bit grease before installing the bit.

Insert the bit into the tool. Turn the bit and push it in until it engages.

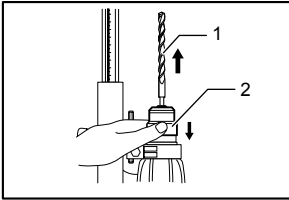
After installing, always make sure that the bit is securely held in place by trying to pull it out.



1. Bit
2. Chuck cover

005875

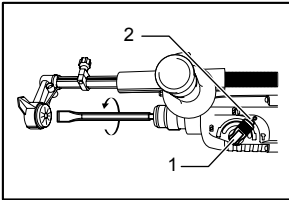
To remove the bit, pull the chuck cover down all the way and pull the bit out.



1. Bit
2. Chuck cover

005876

### Bit angle (when chipping, scaling or demolishing)

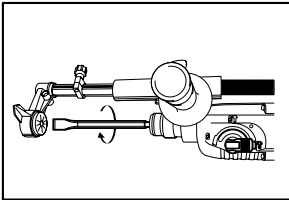


1. Action mode changing knob
2. Lock button

005877

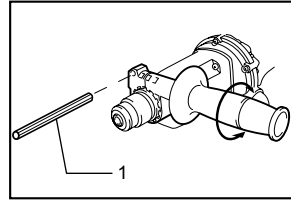
The bit can be secured at the desired angle. To change the bit angle, depress the lock button and rotate the action mode changing knob to the **O** symbol. Turn the bit to the desired angle.

Depress the lock button and rotate the action mode changing knob to the **∩** symbol. Then make sure that the bit is securely held in place by turning it slightly.



005878

### Depth gauge (optional accessory)



1. Depth gauge

005879

When drilling without dust extractor attachment, the depth gauge is convenient for drilling holes of uniform depth. Remove the dust extractor attachment. Loosen the side grip and insert the depth gauge into the hole in the side grip. Adjust the depth gauge to the desired depth and tighten the side grip.

#### NOTE:

- The depth gauge cannot be used at the position where the depth gauge strikes against the gear housing.

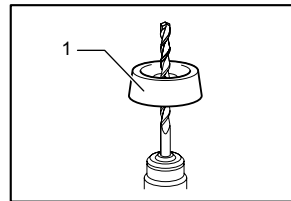
### Dust extractor attachment and dust bag (In concrete drilling operation)

With the dust extractor attachment and the dust bag installed on this tool, you can do your work very cleanly without dust scattered around in the work site.

#### ⚠ CAUTION:

- These two accessories can be used only for drilling holes in concrete. Accordingly, do not use them in metal or wood drilling operation.

### Dust cup (optional accessory)



1. Dust cup

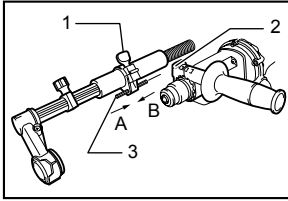
005891

Use the dust cup to prevent dust from falling over the tool and on yourself when performing overhead drilling operations. Attach the dust cup to the bit as shown in the figure. The size of bits which the dust cup can be attached to is as follows.

	Bit diameter
Dust cup 5	6 mm - 14.5 mm
Dust cup 9	12 mm - 16 mm

006406

## Installing dust extractor attachment



005880

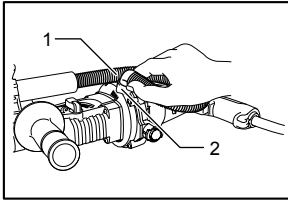
1. Clamping screw
2. Coupling hole
3. Coupling rod

Loosen the clamp screw of the side grip by turning it counterclockwise. Insert the coupling rod of the dust extractor attachment through the coupling hole of the side grip until the rod cannot be pushed in any further. And then tighten the clamp screw clockwise to secure the dust extractor attachment. The coupling rod can be inserted from either side A or B.

### NOTE:

- At some angles of the side grip with the tool, the dust extractor attachment cannot be installed on the tool because of the interference between the attachment and the tool.

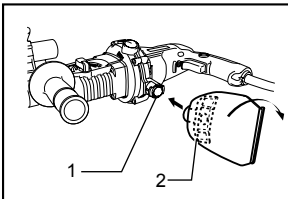
Insert firmly the hose of the dust extractor attachment into the hose port of the tool until the hose hits against the bottom of the port to be fixed firmly to the tool.



005881

1. Hose
2. Hose port

## Installing dust bag

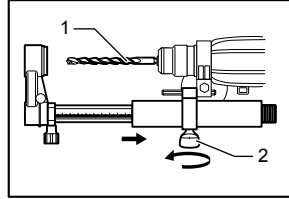


005882

1. Dust exhaust port
2. Frame

Keeping the angle of the dust bag with the tool at 90°, insert the dust bag into the dust exhaust port of the tool. Secure the dust bag by turning it clockwise at its frame.

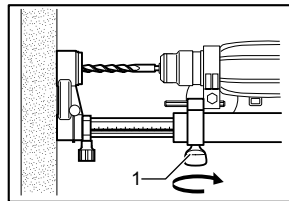
## Adjusting the position of dust extractor attachment



005883

1. Bit
2. Clamping screw

Loosen the clamp screw of the dust extractor attachment by turning it counterclockwise. And then align the tip of the bit with the top of the dust extractor attachment.

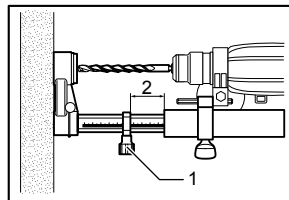


005884

1. Clamping screw

Tighten the clamp screw by turning it clockwise to secure the dust extractor attachment.

## Depth adjustment



005885

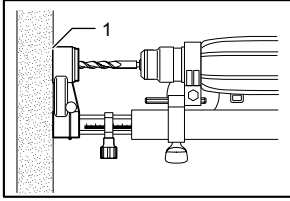
1. Stopper
2. Drilling depth

Loosen the screw of the stopper by turning it counterclockwise so that the stopper could slide on the depth gauge of the dust extractor attachment. Slide the stopper to the desired drilling depth of the gauge, and then tighten the screw by turning it clockwise.



## OPERATION

### Drilling with dust extractor attachment



005886

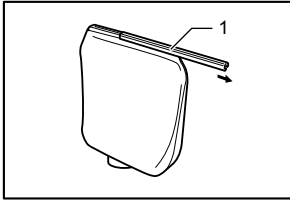
1. Complete contact with the surface

In drilling operation, hold the tool so that the top end of the dust extractor attachment is always kept in complete contact with the surface of concrete.

#### NOTE:

- Any space between them would result in a considerable loss of dust extracting power.

### Cleaning out dust bag



005887

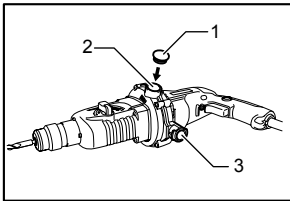
1. Fastener

Remove the dust bag from the tool. Pull the fastener out of the dust bag, and then remove dust or particles to clean out the dust bag.

#### NOTE:

- Too much dust in the dust bag would result in a considerable loss of dust extracting power. Accordingly, clean out the dust bag from time to time.

### Drilling without dust extractor attachment

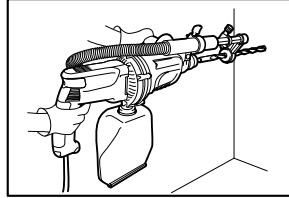


005888


1. Cap
2. Hose port
3. Dust exhaust

This tool can be also used as a standard rotary hammer without the dust extractor attachment and the dust bag. Before drilling operation without the dust extractor attachment and the dust bag, plug the hose port with the cap provided. The cap reduces the exhaust air from the dust exhaust port for your comfortable operation.

### Hammer drilling operation



005889

Set the action mode changing knob to the  symbol. Position the bit at the desired location for the hole, then pull the switch trigger.

Do not force the tool. Light pressure gives best results. Keep the tool in position and prevent it from slipping away from the hole.

Do not apply more pressure when the hole becomes clogged with chips or particles. Instead, run the tool at an idle, then remove the bit partially from the hole. By repeating this several times, the hole will be cleaned out and normal drilling may be resumed.

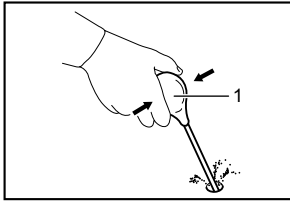
#### ⚠CAUTION:

- There is a tremendous and sudden twisting force exerted on the tool/bit at the time of hole break-through, when the hole becomes clogged with chips and particles, or when striking reinforcing rods embedded in the concrete. Always use the side grip (auxiliary handle) and firmly hold the tool by both side grip and switch handle during operations. Failure to do so may result in the loss of control of the tool and potentially severe injury.

#### NOTE:

- Eccentricity in the bit rotation may occur while operating the tool with no load. The tool automatically centers itself during operation. This does not affect the drilling precision.

## Blow-out bulb (optional accessory)

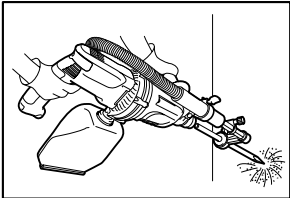


002449


1. Blow-out bulb

After drilling the hole, use the blow-out bulb to clean the dust out of the hole.

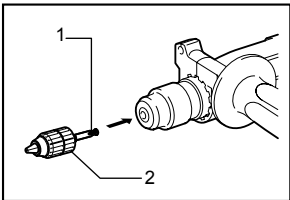
## Chipping/Scaling/Demolition



005890

Set the action mode changing knob to the  symbol. Hold the tool firmly with both hands. Turn the tool on and apply slight pressure on the tool so that the tool will not bounce around, uncontrolled. Pressing very hard on the tool will not increase the efficiency.


## Drilling in wood or metal



004223

1. Chuck adapter
2. Keyless drill chuck

Use the optional drill chuck assembly. When installing it, refer to "Installing or removing the bit" described on the previous page.

Set the action mode changing knob to the  symbol. You can drill up to 13 mm diameter in metal and up to 32 mm diameter in wood.


### CAUTION:

- Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your bit, decrease the tool performance and shorten the service life of the

tool.

- There is a tremendous twisting force exerted on the tool/bit at the time of hole breakthrough. Hold the tool firmly and exert care when the bit begins to break through the workpiece.
- A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hold it firmly.
- Always secure small workpieces in a vise or similar hold-down device.

## Diamond core drilling

When performing diamond core drilling operations, always set the change lever to the  position to use "rotation only" action.

### CAUTION:

If performing diamond core drilling operations using "rotation with hammering" action, the diamond core bit may be damaged.

## MAINTENANCE

### CAUTION:

- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

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

## 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.

- SDS-Plus Carbide-tipped bits
- Bull point
- Cold chisel
- Scaling chisel
- Grooving chisel
- Drill chuck assembly
- Drill chuck S13
- Chuck adapter
- Chuck key S13

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- Bit grease
  - Side grip
  - Depth gauge
  - Blow-out bulb
  - Dust cup
  - Safety goggles
  - Plastic carrying case
  - Keyless drill chuck
  - Cuffs (for connecting to a vacuum cleaner)

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