



# MAXIMA®



ONLY FOR REAL PROFESSIONALS



***Caromax 800 - Operating Instructions***

***SERIAL NUMBER M***



# **OPERATING INSTRUCTIONS**

## **Drilling Machine**

## **“CAROMAX 800”**

### **Content**

SAFETY INSTRUCTIONS	.....	4
„FOR YOUR SAFETY“	.....	4
GENERAL INFORMATION	.....	8
OPERATING INSTRUCTIONS	.....	9
WARRANTY	.....	12
SERVICES	.....	13
DECLARATION OF CONFORMITY	.....	14

This instruction manual contains all important information necessary for safe handling of the dry diamond drill. The dry diamond drill is also referred to as the “tool” or “machine” in this instruction manual.

**WARNING!** Before starting any work with or on the tool, this instruction manual, the safety instructions and the warnings must be read through carefully and observed. Always keep this instruction manual together with the equipment.

## Safety Instructions

### General Power Tool Safety Warnings

#### Workplace safety

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) 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.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### Electrical safety

- a) 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.
- b) 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.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) 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 and moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) 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.
- f) 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.

#### Personal safety

- a) 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.
- b) 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.
- c) 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.
- d) 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.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) 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.
- g) 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

- a) 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.
- b) 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.
- c) 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.

d) 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.

e) 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.

f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) 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**

a) 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.

### **Safety Warnings for Drills**

Wear ear protectors when impact drilling. Exposure to noise can cause hearing loss.

- Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.
- 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.

### **Additional safety warnings**

#### **Operating personnel requirements**

- People below the age of 16 may not use the machine.
- The operating personnel must be familiar with the content of this instruction manual

#### **Workplace safety**

Secure the work area also behind openings and cutouts. Unsecured work areas can endanger you and other people.

- Watch out for open and concealed electricity cables, and water and gas pipes. Use suitable detectors to find concealed utility pipes and cables, or contact the local utility company for advice. Contact with electricity cables can cause fires and an electric shock. Damage to a gas pipe can cause an explosion. Penetrating a water pipe causes damage to property or could cause an electric shock.

- Do not use the power tool near flammable materials. Sparks could ignite these materials.
- Avoid causing situations where other people can stumble or trip.

Tripping over cables can cause serious injuries.

- Secure the workpiece. A workpiece securely held in clamping devices or a vice is more safely held than in the hand.

- Avoid dust accumulation in the workplace. Dusts can easily ignite.

- Ensure adequate ventilation in closed rooms. Risk due to dust and impaired vision.

- Dust from materials such as coatings containing lead, several types of wood, minerals and metals can be harmful to health and cause allergic reactions, respiratory diseases and/or cancer. Asbestos-containing material may only be machined by specialists.

- Wherever possible, use a dust extractor suitable for the material you are working on (e.g. a special MAXIMA dust extractor).

Ensure the workplace is properly ventilated.

We recommend wearing a face mask respirator with filter class P2 or P3 (to EN 149:2001).

Observe the relevant regulations in your country for the materials to be machined.

**Electrical safety**

Before each use, check the power tool, connection cable and plug for damage. Damaged equipment is dangerous, and no longer safe to use.

- Note the mains voltage! The power source voltage must match the details given on the rating plate of the power tool.
- If using the power tool with mobile generators, loss of power or atypical behaviour on switching on is possible.
- Do not use the power tool if the cable is damaged. Do not touch the damaged cable and disconnect the mains plug if the cable is damaged while you are working. Damaged cables increase the risk of an electric shock.
- Only use extension cables suitable for the machine's power consumption and which have a minimum core cross-section of 1.5 mm<sup>2</sup>. If you use a cable drum, always completely unwind the cable. The rolled up cable can heat up and start to burn.
- Regularly clean the ventilation slots of your power tool by blowing it out. Never use liquids. Never insert screwdrivers or any other objects into the ventilation slits. Do not cover the ventilation slits. The motor fan draws dust into the housing and a large accumulation of metal dust can cause electrical hazards.
- External electromagnetic interference (e.g. mains voltage fluctuations, electrostatic discharges) can cause the power tool to switch off automatically. In this case, switch off the power tool and then switch it back on again.
- Do not use any insert tools which require liquid coolant. The use of water or other liquid coolants could result in an electric shock.

**Safety of people**

- **Wear personal protective equipment and, depending on the work situation, use:**

Full-face protection, eye protection or safety glasses/goggles, hard hat and special apron

Protect yourself against debris thrown up by wearing a hard hat, safety goggles or face protection and wear an apron, if necessary.

**Hearing protection**

The typical A-weighted sound pressure level of this power tool is over 85 dB (A) while working with the tool. If you are exposed to loud noise for lengthy periods, there is a risk of hearing damage or even hearing loss.

**Anti-vibration safety glove**

At a release value A (8) for arm-hand vibrations of over 2.5 m/s<sup>2</sup>, the wearing of anti-vibration safety gloves is recommended.

**Non-slip safety footwear****Dust mask, half-face filter mask or face mask respirator**

Inhaling fine mineral dust can cause health damage. We recommend wearing a face mask respirator with filter class P2 or P3 (to EN 149:2001).

Working with dry diamond core drill bits is a grinding process in which extremely fine dust is produced. When cutting materials containing quartz there is a very high risk of silicosis; in this case the machine should only be used in conjunction with a suitable dust extractor (e.g. a special MAXIMA dust extractor).

- Ensure other people keep a safe distance from your work area. Any person entering the work area must be wearing personal protective equipment. Broken pieces of the workpiece or broken insert tools can fly off and cause injuries, even outside the immediate work area.
- Keep the mains power lead away from rotating insert tools. If you lose control of the tool, the mains power lead can be cut or caught and your hand or arm can be pulled into the rotating insert tool.

- Never put down the power tool until the insert tool has come to a complete standstill. The rotating insert tool can come into contact with the surface on which the power tool is placed, which could cause you to lose control of the power tool.
- Do not leave the power tool running while you are carrying it. Your clothing can get caught by inadvertent contact with the rotating insert tool and the insert tool can drill into your body.
- If the machine is switched on, do not direct insert tools towards your own or other people's bodies. Do not touch or take hold of the tools.



### Hazards when using and handling the power tool

If the machine is used for hand-held drilling, always hold both handles firmly when switching on and while working with the machine. (The additional handle must be tightly screwed onto the drill!). When switching on and while working with the machine, expect reaction torques (e.g. due to sudden jamming or breakage of the insert tool).

- Do not use any accessories, which have not been especially provided and recommended for this power tool by the manufacturer. Just because you can attach the accessories to your power tool is not a guarantee of safe use.
- The approved speed of the insert tool must be at least as high as the maximum speed given on the power tool. Accessories which rotate faster than approved can break and fly off the tool.
- Change insert tools carefully and only use the mounting tools provided, if they are in perfect condition. Disconnect the mains plug before changing the insert tool.

Use of the mounting tool provided prevents damage to the power tool and insert tool.

- Never use damaged insert tools. Before each use, check insert tools for splinters and cracks. If the power tool or insert tool is dropped or falls, check whether it is damaged, or use an undamaged insert tool. If you have checked and inserted the insert tool, keep yourself and other people nearby outside the plane of the rotating insert tool and let the power tool run at maximum speed for one minute.

Most damaged insert tools break during this test period.

- Do not expose power tools to extreme heat or cold.

Mechanical and electrical damage can occur during extreme heat and/or cold.

- Allow the insert tools, tool holders and other parts cool in the immediate vicinity of the work area after use.

The equipment can be very hot after use. Do not touch or grip the parts. Risk of injury.

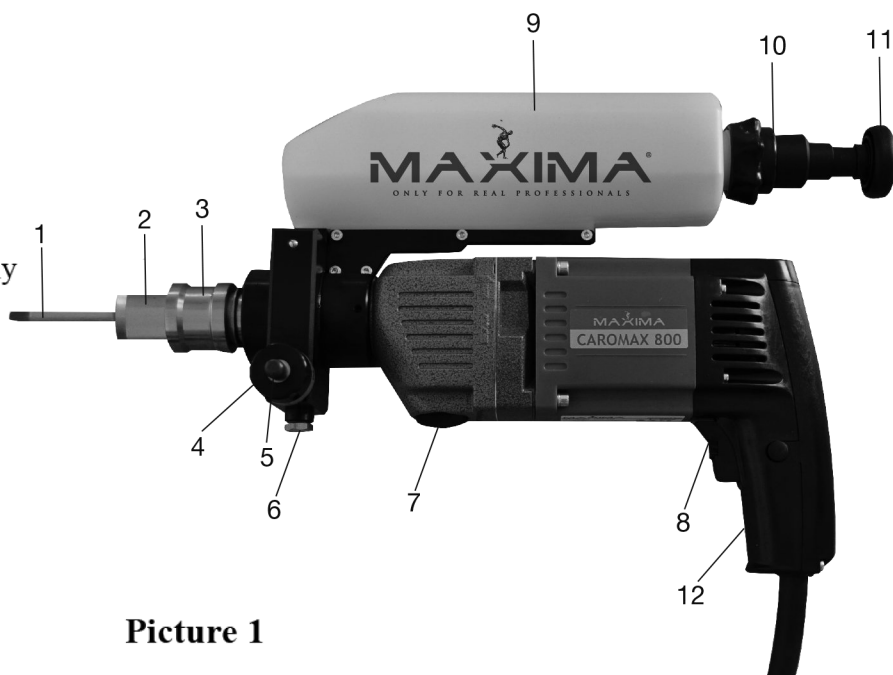
- Additional signs or other, non MAXIMA specific parts may not be screwed or riveted onto the motor, handle, gearbox or protective housing.

This could damage the power tool and cause malfunctions to occur.

- Avoid unnecessary noise emissions.
- Note and follow the safety and work instructions for the accessories used.

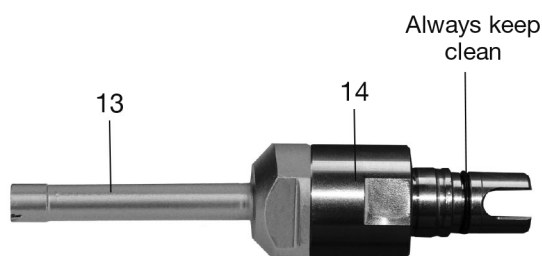
# Diamond Wet Core Drilling Machine CAROMAX 800

- 1 Diamond wet core drill bit
- 2 Quick change adapter
- 3 Push sleeve
- 4 Quantity regulating valve
- 5 Switch valve
- 6 Cap for external water supply
- 7 Gear change
- 8 Switch incl. setting for electronic control
- 9 Water tank
- 10 Lock nut
- 11 Pump
- 12 Handle



**Picture 1**

- 13 Diamond wet core drill bit
- 14 Quick change adapter



**Picture 2**

- 15 Control display
- 16 EIN/RESET push button
- 17 AUS/TEST push button



**Picture 3**

## MAXIMA Wet Core Drilling Machine

Technical data:		CAROMAX 800
Power input	Watt	800
Rotation speed		
1st gear	rpm	3600 min <sup>-1</sup>
2nd gear	rpm	6400 min <sup>-1</sup>
Drilling diameter		
1st gear	mm	20 – 30
2nd gear	mm	6 - 18
Tool holder system		quick change adapter with G1/2" thread
Stainless steel water supply head		yes

Diamond wet core drilling machine CAROMAX 800 is suitable for free hand drilling up to 30 mm diameter with MAXIMA centring device. The inside of the bore holes is smooth. For setting plugs please observe the valid regulations.

**Start up**      **Attention**      Read safety instructions first and observe.

**Always disconnect plug from current supply:**  
before change of tools or doing any work on  
the machine  
before filling the water tank

**Wet drilling is allowed only with a perfect working "personal residual current device PRCD" (see paragraph 3).**

**Protect drive motor from water.**  
**Do not work overhead**

### 1 Quick change adapter for diamond wet core drill bits (picture 2)

Connecting thread for core bit G1/2".

Before first application screw the core bit (13) (fork wrench size 22 or size 24) into the quick change adapter (14) (fork wrench size 27).

Keep the quick change adapter clean.

### 2 Change of core drill

For changing the core drill pull the sleeve (2) (picture 1) on the drive shaft back, take the quick change adapter out and replace it by the required core bit including the mounted quick change adapter.

For mounting the quick change adapter pull the sleeve (2) (picture 1) back and insert the adapter in the correct position. Check if correctly locked.

Before inserting the quick change adapter into the drive shaft make sure that it is well cleaned (picture 2).

### 3 Personal residual current device (PRCD) (picture 3)

**Caution:** Personal residual current device (PRCD) is principally to be checked each time before setting into operation as follows:

- connect to power supply and press the RESET push button (21) - the orange control display (20) signals "power-on".

- **For testing the residual current switch-off function:**

- press the TEST push button and the orange control display will disappear.
- after pressing the-RESET push button again you may start the connected machine.
- In case of the residual current switch-off function does not work or the PRCD switches off repeatedly while starting the electric power tool the complete combination has to be checked by a qualified electrician.

**Before being checked it is not allowed to operate the machine. – Danger of life.**

#### **4 Water supply**

The water supply while drilling comes from the water tank (9) (picture 1). The water quantity is adjusted with a valve (4): Position 1 = low water quantity, Position 2 = high water quantity.

The pulsating water supply is caused by manual pushing the switch valve (5).

The water tank can be filled by unscrewing the lock nut (10).

The necessary compression for the water supply is built up with the water pump (11).

### **. Drilling**

#### **5.1 Check**

- **if the personal residual current device (PRCD) is working correctly (see paragraph 3)**
- **if the motor is protected against water jets**
- **if all safety rules are observed**

#### **5.2 Operation**

Fill up the water tank carefully. Water must not run over the motor. Use a funnel if necessary.

Use only clean tap water.

For compression make approx. 10 pump strokes.

Adjust the required water flow on the quantity regulating valve (4) (picture 1).

Position 1 = low water quantity, Position 2 = high water quantity

Select the suitable rotation speed (see on top) with the gear change switch (7).

Use a suitable centring device for correct setting of the drill bit. The diameter must correspond with the diameter of the drill bit.

Check correct setting of the centring device.

Guide the drill bit through the relevant bore hole of the centring device while the motor stands still. Check again if centring device is firmly fixed. Hold the machine with one hand on the handle (12). Hold the machine with the other hand on the collar next to the switch valve.

Keep proper footing and balance. Do not stand on a ladder or other movable installations.

Start the machine with the switch (8) immediately to the maximum speed.

Set the drill bit and start drilling with low and constant pressure. Make a short pulse with the switch valve for water supply. Go on drilling with slight pressure and pulsing water supply. Release time by time and pull a little back in order to rinse the bore hole.

When passing the rest of tiles towards the masonry behind use permanent water supply to keep the drill bits free from drill mud.

## 6 Cleaning

After finishing the drilling works clean properly and blow out with compressed air. Grease the screws and threads slightly.

Water supply head: empty and blow out with compressed air. Grease thread slightly.

Handle: dry, clean and remove grease.

## 7 Directions for use to achieve the optimal drilling results

- use centring device for precise setting of the bore holes
- do not press the switch valve permanently. Pulsating use of the switch valve avoids blocking of the core or core rests
- if the core bit is inside blocked, the boring of the core bit must be cleaned with a suitable tool (i.e. ejector or wire).
- remove rests from the core bits immediately after drilling before it dries out.
- for filling the tank use only clean water (tap water).
- use only diamond core bits approved by Baier.

Other brands could have inaccuracy in true running. This would cause problems when setting the core bits. Precise borings are not possible.

## WARRANTY

The power tools placed on the market and distributed by Maxima SpA take into account the regulations of the laws concerning engineering tools and equipment to protect against risks to health and safety. We guarantee the perfect quality of our products and accept the costs of subsequent repairs by replacing the damaged parts or replacement with a new tool in case of design, material and/ or manufacturing errors within the warranty period. The warranty period for commercial use is 12 months.

The following are prerequisite for a warranty claim due to design, material and/or manufacturing errors:

1. Proof of purchase and compliance with the instruction manual A mechanically produced original copy of a purchase voucher must always be submitted in order to make a warranty claim. It must contain the complete address, date of purchase and type designation of the product. The instruction manual for the respective machine and the safety instructions must have been complied with. Damage due to faulty operation cannot be recognised as a warranty claim.

2. Correct deployment of the machine Maxima's products are developed and produced for specific purposes. A warranty claim cannot be acknowledged in the event of failure to comply with the intended use in accordance with the instruction manual, misuse or use for another purpose or use of unsuitable accessories. The warranty does not apply if the machine is deployed in continuous and piece-work operation or for rental and hire purposes.

3. Compliance with servicing intervals Regular servicing by us or a servicing and repair firm authorised by us is prerequisite for warranty claims. Servicing is specified for when the carbon brushes are worn, however at least once a year. The machine must be cleaned in accordance with the provisions of the instruction manual. All warranty entitlements expire in case of intervention/tampering with the machine by third parties (opening the machine). Servicing and cleaning work are not generally covered by the warranty.

4. Use of original Maxima spare parts Ensure that original Maxima spare parts and Maxima accessories only are used. They are available from authorised dealers. The type and quantity of grease are to be used according to the valid grease list. Use of non-original parts can cause consequential damage to the machine and an increased risk of accidents. Dismantled, partly dismantled machines and machines repaired with third party spare parts are excluded from the warranty.

5. Wearing parts Certain components are subject to use-induced wear or normal wear and tear caused by use of the respective power tool. These components include, among other things, carbon brushes, ball bearings, switches, power cords, seals, shaft sealing rings. Wearing parts are not covered by the warranty.

## **Service / Maintenance / Repair**

If the power tool is dropped or becomes wet, have it checked. A possibly damaged power tool is dangerous and no longer safe to operate. Before using the power tool again, have it checked by our customer service or an authorised service centre of Maxima.

- Repair and maintenance work may only be carried out by an authorised workshop of Maxima. Otherwise, all liability and warranty claims against Maxima expire.
- Ensure that original Maxima spare parts and original Maxima accessories only are used when needed. Original parts are available from authorised dealers. Use of non original parts can cause damage to the machine and an increased risk of accidents.
- Regular servicing by Maxima or a servicing and repair company authorised by us is specified. Many accidents are caused by poorly serviced and maintained power tools

## “CAROMAX 800”

### Declaration of conformity



We declare, under our sole responsibility, that this product complies with the following standards or standardisation documents:

EN 50144, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3,  
EN 61029-2-6 (BDB 8142) according to the provisions of the directives  
73/23/EEC 93/68/EEC.

Noise emission:

	BDB 802
Lpa (sound pressure) dB(A)	91
Lpa (sound pressure) dB(A)	100



Take appropriate measures for the protection of hearing if the sound pressure of 85 dB(A) is exceeded.

Vibration:

	BDB 802
m/s <sup>2</sup>	2,6



Presidente  
p.i. Mirco Dall'Olio





Maxima SpA- Via Matteotti, 6 - 42028 Poviglio (Re) Italia  
Tel: 0039 0522 968011 - Fax: 0039 0522 967536  
info@maxima-dia.com - www.maxima-dia.com