

ENGLISH

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 **WARNING**



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OPERATING INSTRUCTIONS

MODEL: **MINI MILLER 8/17**



These instructions are for your personal safety. Always ensure that you have read and understood these instructions before using the machinery. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Picote Mini Miller G 8/17

GENERAL DESCRIPTION

1. Cable Rack
2. Frame
3. Flexible Shaft
4. Motor & Bevel Gear
5. Emergency Stop Button (red)
6. Power Switch
7. Speed Control
8. Foot Pedal — Operator Presence Control



CAUTION

When in use, always lay the machine down horizontally on the floor as shown above. When not in use some non-hazardous paraffin oil might leak from the hand guard.

TECHNICAL DATA

Size (inches)	Shaft (inches)	Range (ft)	Drain Diameter (inches)	Rotating Speed (rpm)	Output (w)	Power Source	Weight (lbs)
29"x20"x16"	1/3"	55ft	2"-3" 2"-4" for cleaning pipes	500-2900rpm	1200w	Electric Motor	50

INTENDED USE

This machine is intended for the following uses;

1. Cleaning sewers and drains by grinding.
2. Reinstating branches in sewers and drains by drilling and grinding.

Always follow the manufacturer's instructions when installing and using the machine with accessories.

VOLTAGE

ENF002-1

Ensure that the supply voltage is correct. The voltage of the power source must match the value given on the nameplate of the machine.

POWER SUPPLY

The machine 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.

EMERGENCY STOP



There is an Emergency Stop Button on the machine. The power supply to the motor is cut off when the Emergency Stop Button is pushed. Always make sure the Emergency Stop Button is pressed or completely unplugged the machine when the machine accessories (e.g. Cutter or Grinding Chains) are not inside the drain.

OPERATION

The machine has an operator presence control or 'OPC'. When the control is not held down, the machine stops.

NOISE LEVEL, VIBRATION & EMISSIONS



This section contains important safety information. Failure to comply could result in serious injury or loss of hearing.

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



WEAR EAR PROTECTION

Sound pressure level (LpA): 90 dB (A)

Sound power level (LWA): 103 dB (A)

ENG202-3

The typical weighted acceleration is 12 m/s²

Emissions during actual use of the machine can differ from declared values depending on the ways that the machine is used. Safety measures to protect the operator should be determined by actual conditions, taking into account all aspects of the operating cycle (such as when the machine is switched off and when it is running idle).

Due to continuing product development, the specifications herein are subject to change without notice.

CE DECLARATION OF CONFORMITY

We Picote Oy Ltd as the responsible manufacturer, declare that the following Picote Oy Ltd machine:

Mini Miller

Model No: G 8/17

is of series production and

Conforms to the following EU Directive:

2006/42/EC

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

EN60745

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

Picote Oy Ltd, Urakoitsijantie 8
06450 Porvoo, Finland

1st April 2012

Mika Lokkinen

C.E.O.

Picote Oy Ltd

Urakoitsijantie 8, 06450 Porvoo, Finland

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

GENERAL MACHINE SAFETY WARNING



WARNING

This section contains important safety information. Failure to comply could result in serious injury or death.

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

SAFETY REQUIREMENTS





WARNING

This section contains important safety information. Failure to comply could result in serious injury or death.



1. **Always wear eye and ear protection as well as cut-resistant gloves.** Other personal protective equipment, such as dust mask, gloves and overalls should be worn when necessary. Dust produced when working can be dangerous to your health, inflammable or explosive.

Always wear appropriate protective equipment. Make sure the drain pipe has been opened and ventilated to stop any gases forming in the lateral drain where the work takes place.

3. Always ensure that the machine is fully turned off and unplugged before inspection, maintenance, or installing any accessories to the machine. Always follow the instructions in the manufacturer's manual.
4. **Before each use** inspect the machine carefully for any potential break or damage. **Change damaged parts immediately.** It is especially important to check the end of the flexible power shaft for any signs of wear and tear, and repeat the process for the outer casing.
5. When in use, it is very important that the machine is stable and on an even surface at all times.
6. **Never leave the machine running unattended.** Always hold the cable when operating the machine.
-  7. **Do not touch** the Cutter or Grinding Chains immediately after use; they may be hot and could burn your skin.
8. If the working environment is extremely hot and humid, or badly polluted by conductive dust, use a GFCI-enabled power outlet to ensure the safety of the operator.
9. Make sure that the job location is well ventilated before grinding or drilling. Always use a vacuum extraction system in the pipe to remove dust. The operator must wear a dust mask when using dry grinding to clean pipes.
10. Ensure that the ventilation openings are kept clear when working in dusty conditions. If it should become necessary to clear dust, first unplug the machine. Avoid damaging internal parts.
11. Do not use the machine on any materials containing asbestos.
-  12. **Never touch rotating parts.** Do not stand on the machine.
13. Only use this machine with the accessories and spare parts offered by the manufacturer. Accessories and spare parts should only be used in the manner intended and as described by the manufacturer.
14. Only operate the foot pedal or OPC as instructed. Never place anything on it in place of a foot.

OPERATING INSTRUCTIONS

While in operation:

- Always lay the machine down horizontally on the floor.
- During drilling and grinding processes, always use a separate vacuum extraction system in the drain to remove dust.

OPERATING THE MACHINE AS A CUTTER

INSTALLING THE CUTTER

1. Before installing the cutter, always make sure that the machine is fully turned off and unplugged.
2. Check that the screws holding the flexible shaft socket are securely tightened.
3. Verify that there is the correct length of flexible shaft without its plastic casing at the end of the flexible shaft.

Cutter: Length of shaft without its plastic casing.

The required length is the same as the length of the cutter hub.



If there is more than 2" of shaft without the casing between the cutter and the end of the casing, cut away the excess with an angle grinder.

CAUTION

4. Always round off the sharp edges of the shaft to avoid cuts and to make it easier to insert the shaft into the cutter hub

5. Check that all screws are in place and that their stems work properly.
6. Verify that all screws have been loosened so that the shaft can be easily inserted inside the hub
7. Position the shaft inside the cutter hub as far as it will go.
8. Tighten the screws.

ROTATIONAL DIRECTION

Always check that the cutter is set to rotate in the desired direction. The natural and intended rotational direction of the shaft should be clockwise, due to its fabrication. When used clockwise the torque is at its optimum. **PLEASE NOTE that using the shaft anti clock wise must be used with caution. The shaft should be run anti clock wise only when necessary to smoothen something or to get out a tool that has gotten stuck. When used anti clock wise, the shaft will wear faster out and might break.**

STARTING & USING THE MACHINE

Only start the machine once the cutter has been placed inside the pipe. First ensure that the power switch is at the on position (at the side of the power box). Next check that the Red Emergency Button is not pressed. The machine starts when the OPC foot pedal is pressed down. Always hold the flexible shaft firmly while operating the machine. Verify the rotational direction before placing cutter in the pipe.

STOPPING THE MACHINE



As soon as the OPC foot pedal is released, the machine will stop. The machine will also stop as soon as the Red Emergency Button is pressed down or the black power switch is turned to the off position.

OPERATING THE MACHINE AS A GRINDER

INSTALLING THE GRINDING CHAIN

Before installing the grinding chain always:

- ⚠ WARNING** 1. Check that the machine is switched off and unplugged to avoid risk of electric shock or serious personal injury.
- 2. Make sure that the screws holding the flexible shaft socket are securely tightened.
- 3. Verify that there is the correct length of flexible shaft without its plastic casing at the end of the shaft.

Picote Grinding Chains		
Shaft size	Model & Sizes	Model & Sizes
For 1/3" cable	Original: 2", 3" & 4"	Cyclone: 3", 4"

If there is more than 2" of shaft without its plastic casing between the chain and the end of the casing, cut away the excess with an angle grinder.

- ⚠ CAUTION** 4. Always round off the sharp edges of the shaft to avoid cuts and to make it easier to insert the shaft into the chain.
- 5. Check that all screws are in place and that the stems work correctly.
- 6. Verify that the screws have been loosened so that the shaft can be easily inserted inside the chain.
- 7. Position the shaft inside the chain as far as it will go.
- 8. Tighten the screws.

STARTING & USING THE MACHINE

⚠ WARNING *This section contains important safety information. Failure to comply could result in serious injury or death.*

Only start the machine once the grinding chain has been placed inside the pipe. The machine starts when the OPC foot pedal is pressed down. Always hold the flexible shaft firmly while operating the machine. The rotational direction of the shaft should be clockwise, with exceptions.



Always wear a dust mask when using dry grinding to clean pipes.

STOPPING THE MACHINE

As soon as the OPC foot pedal is released, the machine will stop.

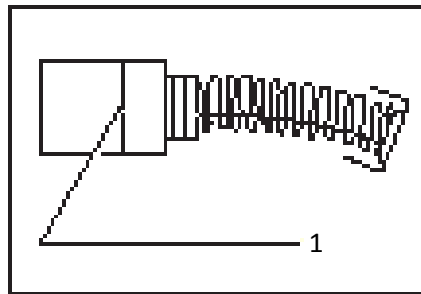
MAINTENANCE

- ⚠ WARNING** 1. Before performing any maintenance always check that the machine is fully turned off and unplugged.
2. Carefully inspect the flexible shaft and its casing on a regular basis to ensure that there are no signs of wear and tear. Change the flexible shaft and casing when required. **Check also regularly the attachment of the shaft on the machine end. If the twine has opened all the way for the length of the shaft so the shaft has visible holes, the shaft has to be exchanged. On the cutter end, the shaft has to be cut removing damaged shaft if the screws have gone through the twine damaging the shaft.**
3. For safety and efficiency, always keep ventilation slots clean.

REPLACING CARBON BRUSHES

Remove and check carbon brushes regularly and replace when worn 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. Limit mark

SERVICING THE FLEXIBLE SHAFT

The flexible shaft is pre-treated with paraffin oil and the casing replaced prior to shipping. Always inspect the condition and apply lubricant between the flexible shaft and its outer casing when required. **The shaft should be lubricated with a small amount of paraffin oil weekly to lengthen the life span of the shaft. Pour some oil to the free end of the shaft between the cable and the outer casing. Turn the machine on and let it run anti clock wise for 5 minutes for even coverage of the lubricant.**

ACCESSORIES

- ⚠ WARNING** You must use only the machine manufacturer's accessories and attachments with the machine described in this operations manual. The use of other accessories or attachments could present a risk of injury or death. The accessories or attachments should only be used in the proper and intended manner, and always follow manufacturer's instructions.



For support & Accessories

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