



NINJA FLEX PRO

User's manual - Use and Maintenance
Drain Cleaning Machine

EN

1 - SAFETY



Danger risk of serious injury or death by electrocution, follow instructions.



Danger risk of serious injury, follow instructions.



Danger risk of serious injury from rotating parts, follow instructions.



Danger risk of serious injury from hot parts, follow instructions.



Danger do not touch. Risk of injury, follow instructions.



Always wear suitable eye protection when using the Ninja Flex to prevent sewage, chemicals or other dust from irritating your eyes.



Always wear suitable ear protection when using the Ninja Flex to prevent any hear-ing loss.



Always wear suitable cut-resistant gloves when using the Ninja Flex to prevent any hand injuries. Any open injuries or skin irritations should be covered at all times to avoid contact with sewage, chemicals or dust.



Always wear a suitable ventilation mask when using the Ninja Flex to prevent any resin dust or fumes being inhaled or consumed, which can cause occupational asth-ma or dermatitis as well as eye irritation.

2 - SPECIFICATIONS

KAMMAK NinjaFlex Drain Cleaning Machine will be your new favorite with its lightness, easy portability and high speed!

NinjaFlex machines can also be operated with a channel camera and probe (transmitter). With this option, it is possible to see the drain while cleaning it. NinjaFlex enables faster installation and faster cleaning compared to older generation drain cleaning machines, providing additional time savings.

TECHNICAL FEATURES

Drain Capacity (Nom.) : 50 - 150 mm

Cable Diameter : 8mm

Cable Assembly Length : 20 m (Extendable)

Rotational Speed : Min 500 RPM - Max 2900 RPM

Power : 1200 W

Weight (without Drill/Knocker) : 25 kg

Operating temperature : -40°C to 100°C

Output : 220 V - 50 Hz

Safety Features : Protective shaft guard, operator foot control, built-in GFI, electrical protection and emergency stop

BOX CONTENTS:

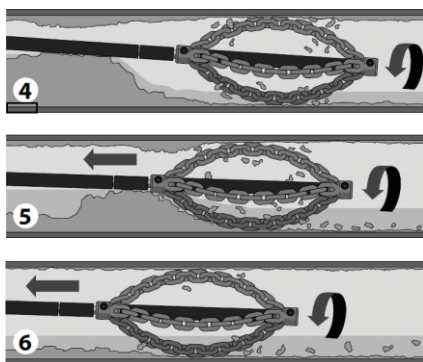
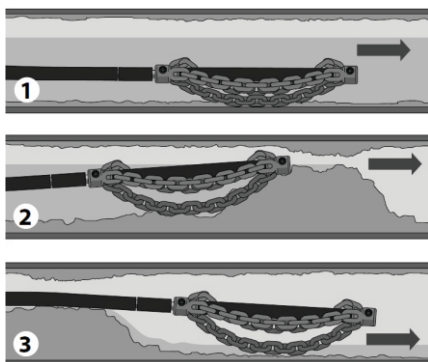
- 1 pcs Kammak NinjaFlex Pro Drain Cleaning Machine
- 5 pcs Chain Knocker
- 1 pcs Operating Manual
- Lifetime Warranty



3 - WARNINGS

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 ex-plosive. Always wear appropriate protective equipment.
2. 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 re-peat 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 Kammak. Accessories and spare parts should only be used in the manner intended and as described by the Kammak.
14. Only operate the foot pedal or OPC as instructed. Never place anything on it in place of a foot.
15. Do not extend the shaft by more than one extension. Use only Kammak shaft extension and connector.

4 - GENERAL USAGE STEPS



5 - USE

Before installing Ninja Flex tools, always make sure that the machine is fully turned off and unplugged.

- Always round off the sharp edges of the shaft to avoid cuts and to make it easier to insert the shaft into the tool or leader to be used.
- Check that there is the correct length of flexible shaft (without its plastic casing) at the end of the flexible shaft and that all screws have been loosened so that the shaft can be easily inserted inside the tool. Position the shaft inside the tool, as far as it will go, and tighten the screws.

Always check that the tool is set to rotate in the clockwise direction. Due to its fabrication, the natural and intended rotational direction of the shaft should be clockwise so that the torque is at its optimum.

DO NOT ROTATE THE CABLE IN REVERSE UNDER LOAD!

While in operation:

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

1. Check the rotational speed of the shaft before powering up. The control of the rotational speed is located in the motor. The rotational speed can be selected from 1 to 6.
2. Place the tool inside the pipe.
3. Turn on the power switch.
4. Release the Red Emergency Switch Off Button.
5. The machine starts when the OPC foot pedal is pressed down. Always hold the flexible shaft firmly while operating the machine.
6. Rotating the tool makes it easier to move the tool forward inside the pipe.
7. The machine has an operator presence control or 'OPC'. When the control is not held down, the machine stops. The machine can also be stopped by pushing the Emergency Stop Button down, rotating the power gear to O or unplugging the machine.
8. The life span of the shaft outer casing can be prolonged by using Sleeve Bearing designed for the **outer** casing.

Optimal rotation speed of the Ninja Flex is depends on work. Minimum rotation speed is normally the best when moving the tool around tight bends. When beginning to work, adjust the speed up to the level which seems to work the best.

Speed dial can be found from the motor itself. Set the speed by rotating the button.

6 - MAINTENANCE

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 as and when required.
3. For safety and efficiency, always keep the machine and its motor, drive unit, ventilation and cooling slots clean.
4. Check that the screws for the shaft socket are securely tightened.
5. Check that all the bolts and screws on the machine are securely tightened.
6. It is recommended that the oil in the bevel gear should be changed about every 12 months. Only use regular oil developed for gearboxes.

CHANGING THE FLEXIBLE SHAFT

Only use the shaft and its outer casing specified by Kammak. Order the replacement shaft from your reseller. The flexible shaft is pre-treated with Kammak Flexible Shaft Lubricant and the casing replaced prior to shipping.

1. Loosen the bolts holding the hand guard and remove the hand guard.
2. Open bolt which is holding strain relief spring.
3. Loosen the screws in the safety clutch that hold the shaft. Pull strain relief spring away from the shaft.

Pull the old shaft out of the machine.

4. Insert new shaft. Before inserting the shaft inside the safety clutch, add strain relief spring and tighten it. Verify that the shaft goes all the way to the end. Tighten the screws.

FLEXIBLE SHAFT EXTENSION

Flexible extension shafts are available for the Ninja Flex in lengths of 20 metres. Do not extend the shaft by more than one extension and only use a Kammak shaft extension and connector. Before attaching or removing the shaft extension always make sure that the machine is fully turned off and un-plugged.

1. Machine as far as possible with the flexible shaft before fitting the extension.
2. Remove the flexible shaft from the pipe.
3. Push the extension down the pipe and then connect onto the existing flexible shaft using a shaft connector.
4. You can then carry on working.

Note: for vertical pipes connect the extension onto the existing flexible shaft before pushing the extension down the pipe

7 - CLEANING

It is a good practice to use a towel to wipe dirt and debris from the sheath as the cable assembly is pulled from the drain and placed back into the drum. This will keep the drum clean and reduce the chance of the cable assembly getting stuck in the drum.

8 - WARRANTY AND TECHNICAL SERVICE

Dear Customer, we kindly ask you to comply with the following recommendations:

-When you receive your product, have the warranty certificate approved by your authorized dealer.

-Use your product according to the principles of the operating manual.

-When you have a service request regarding your product, please contact our call center at the phone numbers below.

Kammak Call Center provides service during working hours. You can request the service you desire regarding your product by calling our call center number from your landline or mobile phone. You can also reach our Call Center by filling out the form at www.kammakpumps.com.

Kammak Call Center
+90 224 223 2898

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Parts of these tools contain valuable materials and should be recycled.
There may be companies specializing in recycling in your area.
Dispose of parts according to applicable regulations.
For more information, contact your local authority waste management unit.

During use, handle the machine carefully and avoid damage.

To reduce the risk of serious injury, only use accessories specifically designed and recommended for the KAMMAK NinjaFlex Drain Cleaning Machine.





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