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## OPERATING INSTRUCTIONS

**MODEL: MAXI MILLER POWER PLUS 18/20**



**! WARNING**

*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.*

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To watch practical demonstration videos, or to download an electronic copy of these Instructions, please visit [www.picotesolutions.com](http://www.picotesolutions.com). Please note that videos are not intended as a replacement or alternative to this operating and safety manual, but only as an additional learning tool.

## SAFETY INFORMATION

### **WARNING**

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

### Safety Symbols

Safety symbols are used throughout this manual to draw attention to potential hazards.



**Danger**  
400 Volts

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



**Danger**  
Electric shock risk

**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

**Danger** risk of serious injury from hot parts



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

### Personal Protective Equipment (PPE)

Always use Personal Protective Equipment when using the Smart Sweeper and Miller systems, including suitable overalls / protective clothing & footwear and the following:



Always wear suitable eye protection when using the Smart Sweeper to prevent epoxy or other dust from irritating your eyes.



Always wear suitable ear protection when using the Smart Sweeper and Miller systems to prevent any hearing loss.



Always wear suitable cut-resistant gloves when using the Smart Sweeper to prevent any hand injuries. Any open injuries or skin irritations should be covered at all times to avoid contact with epoxy dust.



Always wear a suitable ventilation mask when using the Smart Sweeper or Miller systems to prevent any epoxy resin dust being inhaled or consumed, which can cause occupational asthma or epoxy dermatitis as well as eye irritation.

## Safety Symbols cont.

Safety symbols are used throughout this manual to draw attention to potential hazards.

### Always remember



Dust produced can be dangerous to your health, inflammable or explosive.

Make sure the drain pipe has been **opened** and **ventilated** to stop any gases forming in the lateral drain where the work takes place.

Before assembly, use, replacement of parts or maintenance, unplug the Picote milling machine or your hand drill from its power socket.



**High voltage. Failure to comply may lead to serious injury including electric shock or injury from rotating parts!**

**Danger**  
400 Volts



### **WARNING**

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



**Danger**  
400 Volts



1. **Always wear eye and ear protection as well as protective gloves.** Other personal protective equipment, such as respirator 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.
2. Make sure the pipe has been opened and ventilated to stop any gases forming in the lateral drain where the work takes place. Always ensure the pipe is grounded/earthed to prevent static electricity.
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. Remove damaged parts by cutting the power shaft shorter (min. 50 mm/2") if steel strings of the power shaft are broken near the end of the power shaft.
5. When in use, it is very important that the machine is stable and on an even surface at all times. Working position is horizontal and lying flat.
6. **Never leave the machine running unattended.** Always hold the cable with both hands 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 (less than 95% is acceptable), or badly polluted by conductive dust, always use a residual current device in main power source 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 respirator mask.
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.
15. Do not change or touch the controls or wirings of the motor or frequency transformer.
16. Do not extend the shaft by more than one extension. Use only manufacturer's shaft extension and connector.

## OPERATING INSTRUCTIONS



Danger  
400 Volts

**Before installing Picote tools, always make sure that the machine is fully turned off and unplugged from the power source.**

### **! WARNING**

- Always round off the sharp edges of the shaft to avoid cuts and to make it easier to insert the shaft into the tool to be used.

### **! CAUTION**

- Check that there is the correct length of flexible shaft without its plastic casing at the end of the flexible shaft. Check 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. Tighten the screws. **Consult accessory manuals (cutters & grinding chains) for detailed information.**
- Always check that the unit is set to rotate in the desired direction. The natural and intended rotational direction of the shaft is clockwise (=forward), due to its fabrication. When used clockwise the torque is at its optimum.
- **Anti-clockwise (=reverse) rotation direction is strictly for temporary use only!** It may result in shaft failure.

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 in the drain to remove dust.

## STARTING & USING THE MACHINE

### **! WARNING**

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

1. Check the rotational direction of the shaft and the rpm. The rotational direction is checked using the forward/reverse switch on the control unit (forward or reverse). The control of the rotational speed is also located in the control unit. The rotational speed increases when the speed control is turned clockwise.
2. Place the tool inside the pipe.
3. Turn on the power switch.
4. Release the Red Emergency Button (if it's pressed down).
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. **Take at least 10m of shaft out from the reel when working to increase the force transferred to the tool.**
8. 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 down, rotating the power switch to O, unplugging the machine or rotating main frame on/off switch to O.
9. The life span of the shaft outer casing can be prolonged by using Sleeves with Bearings designed for the outer casing.

**Display messages** There is a display on the frequency transformer. The following messages in may occur:

Stop	The Maxi Miller Power Plus is ready and waiting for OPC activation
. . . .	The Maxi Miller Power Plus is using more current than nominal current
E-trip	The Maxi Miller Power Plus is overloaded to the point that the power will be cut off momentarily. Lift your foot off the pedal and press the pedal down again to continue. Avoid overloading the motor.

# Picote Maxi Miller Power Plus 18/20

## GENERAL DESCRIPTION

1. Shaft reel
2. Frame
3. Flexible Shaft
4. Gear Box (not shown)
5. Control Box
6. Emergency Stop Button (red)
7. Power Switch
8. Forward/reverse
9. Foot Pedal — Operator Presence Control (OPC)
10. Speed Control
11. Shaft Reel Locking System
12. Hand Guard & Strain Relief
13. ON/OFF switch
14. Control unit



## CAUTION

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

## TECHNICAL DATA

Size (mm/inches)	Shaft (mm/inches)	Range (m/feet)	Diameter (mm/inches)	Rotating speed (rpm)	Voltage and power rating (V/kW)	Power Source	Weight (kg/lb)	IP Class
1150x854x489 /45x34x19	18 / ¾	20 / 65	DN150-225 *DN75-225 **DN150-300	500-1500	380 - 480V / 3.0 kW	Electric 3-phase Motor	115 / 254	54

\*for straight pipes

\*\*for descaling/cleaning

## INTENDED USE

This machine is intended for the following uses;

1. Cleaning and maintenance of pipes, sewers and drains by grinding.
2. Reinstating branches in pipes, sewers and drains by drilling and grinding.
3. Cutting excess cured-in-place (CIPP) linings.
4. Removing deformed or collapsed CIPP linings.

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



# Picote Maxi Miller Power Plus 18/20

## WARNING

### VOLTAGE & POWER SUPPLY



Ensure that the supply voltage is correct. The voltage of the power source must be within the voltage range given on the nameplate of the machine.

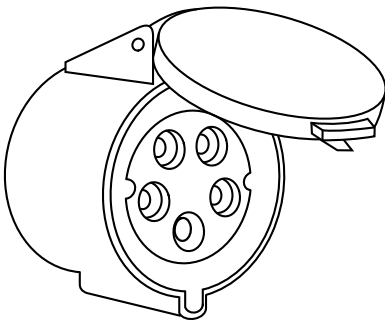
**Danger**  
400 Volts

The machine should be connected only to a **380-480 V power supply** as indicated on the nameplate, and can only be operated on three-phase AC supply rated for at least **16 A current**. The machine has been double sealed according to European standards. The power source has to be grounded. The frequency transformer of the motor can cause residual current device to go off. If this happens frequently, change the power source to one with slower residual current device. **Residual current device should be type C** and residual current permission should be **30 mA**. Use only residual current devices which are permitted in power feed from main power source.

### Power plugs

**For safety purposes**, this machine may be equipped with a specialty plug. If the plug does not fit securely or match the outlet, do not force it — contact an electrician to determine the required power supply. Never alter the plug in any way. Use the plug with an extension cord only if it can be fully inserted into the cord's socket. Use the Maxi Miller Power Plus with a heavy duty extension cord only. Extension cord **lead minimum thickness is 2.5 mm<sup>2</sup> up to 25 m**.

If a power generator is used, make sure that power rating is sufficient, **at least 8 kVA** measured, continuous output. Only clean and stable sine wave is accepted. Contact your reseller or Picote Solutions technical support for more information.



### 400 V

The Maxi Miller Power Plus is equipped with a 5-pin 400 V / 16 A plug. The plug fits into a three-phase 400 V socket shown in the picture on the left.

Power cable lead minimum thickness 2.5mm<sup>2</sup>.

The Maxi Miller Power Plus must be supplied with sufficient power and proper current rating. Minimum lead thickness for an extension cord is 2.5mm<sup>2</sup>.

If power generator is used, minimum of 8 kVA is required. An adapter is provided to connect the Maxi Miller Power Plus into a 5-pin 400 V / 32 A socket. Other adapters may be necessary for generator connections.

### EMERGENCY STOP



**There is a safety gear with a Lock/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 unplug the machine when the machine accessories (e.g. Cutter or Grinding Chains) are not inside the drain. An additional on/off switch is located in the main frame of the machine for increased safety of operation.

### COMPUTER GUIDED SAFETY CLUTCH

The machine has an automatic safety clutch which shuts down the machine when the tools get stuck.

### OPERATION

The machine has an Operator Presence Control or 'OPC'. When the control is not held down, the machine stops.



## **⚠ WARNING**

### **ELECTRICAL REQUIREMENTS— ELECTRICAL SET UP**



**Danger**  
400 Volts

Electrical shock can cause serious or fatal injury. Only qualified personnel should install, maintain or troubleshoot this equipment.

Picote recommends that a properly trained electrician be available to wire a power distribution box to whatever power source is available. In the case where a generator is required, a minimum power requirement of 25,000 KW/KVA 3 Phase 480 volt is necessary.

**The Power Plus is a dual voltage 3 phase power configuration. It uses a 10 gauge 4 wire cord.**

Be sure the system is properly grounded before applying power. Do not apply power before you ensure that grounds are connected. Electrical shock can cause serious or fatal injury. Follow the National Electrical Code (NEC) and local codes for the safe installation of the equipment.

Do not operate the Power Plus Miller until you are sure that you are completely familiar with the safe operation of the machine, all accessories and safety equipment. Improper use can lead to severe injury. The user manual defines proper use of this equipment.

**Contact Picote if you do not understand any procedure or operation concerning this equipment or the user manual.**

## NOISE LEVEL, VIBRATION & EMISSIONS



### WARNING

*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): 85 dB (A)

Sound power level (LWA): 98 dB (A)

Emissions during actual use of the machine can differ from the 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).

## VIBRATION

Hand vibration levels depend on the tool head distance to user and working conditions. Vibration levels in here have been measured in lining removal work. Vibration has been determined according to ISO-5349 and EU-directive 2002/44/EG. In table above are shown safe daily exposure time for user.

**Exposure Action Value (EAV) 2,5 m/s<sup>2</sup>**

**Exposure Limit Value (ELV) 5,0 m/s<sup>2</sup>**

Tooling	EAV	ELV
Smart Sweeper with drill head	1h 5 min	4 h 22 min
Smart Sweeper with Crasher head	2 h 47 min	11 h 8 min
Twister	10 h 46 min	Over 24 h
Premium Cyclone Chain	15 h 58 min	Over 24 h
Smart Crusher DN100	55 min	3 h 38 min
Smart Cutter DN150	9 h 58 min	Over 24 h

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

## CE DECLARATION OF CONFORMITY

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

Maxi Miller Power Plus  
Model No: MXM P+ 18/20  
is of series production and

**Conforms to the following EU Directive:**

2006/42/EC

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

EN60745

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

Picote Solutions Oy Ltd, Urakoitsijantie 8  
06450 Porvoo, Finland

1st June 2017



Katja Lindy-Wilkinson  
C.E.O.  
Picote Solutions Oy Ltd  
Urakoitsijantie 8, 06450 Porvoo, Finland

## TROUBLESHOOTING

The control box of the Maxi Miller Power + will show fault codes according to different problems which the machine may encounter during use. **Please check from the list below the most common fault codes of Maxi Miller Power + control box. If other code than below is received or fault does not amend, please write down the error code and contact your reseller.**

Fault Code	Description	Suggested Remedy
no-F <sub>1</sub> t	No Fault	Not required
01-b	Brake Channel over current	Check external brake resistor condition and connection wiring
0L-br	Brake resistor overload	The drive has tripped to prevent damage to the brake resistor
0-1	Output over current	Instantaneous over current on the drive output. Excess load or shock load on the motor.  Note: Following a trip, the drive cannot be immediately reset. A delay time is inbuilt, which allows the power components of the drive time to recover to avoid damage.
1 <sub>1</sub> -trP	Motor thermal overload	The drive has tripped after delivering >100% of value in P-08 for a period of time to prevent damage to the motor.
P5-trp	Power stage trip	Check for short circuits on the motor and connection cable
U-volt	Under voltage on DC bus	The incoming supply voltage is too low. This trip occurs routinely when power is removed from the drive. If it occurs during running, check the incoming power supply voltage and all components in the power feed line to the drive.
0-t	Heatsink over temperature	The drive is too hot. Check the ambient temperature around the drive is within the drive specification. Ensure sufficient cooling air is free to circulate around the drive.  Increase the panel ventilation if required. Ensure sufficient cooling air can enter the drive, and that the bottom entry and top exit vents are not blocked or obstructed
U-t	Under temperature	Trip occurs when ambient temperature is less than -10°C. Temperature must be raised over -10°C in order to start the drive.
E-trip	External trip	E-trip requested on digital input 3. Normally closed contact has opened for some reason. If motor thermistor is connected check if the motor is too hot.
FLt-dc	DC bus ripple too high	Check incoming supply phases are all present and balanced.
P-L055	Input phase loss trip	Check incoming power supply phases are present and balanced.
h 0-1	Output over current	Check for short circuits on the motor and connection cable.  Note: Following a trip, the drive cannot be immediately reset. A delay time is inbuilt, which allows the power components of the drive time to recover to avoid damage.
dAtA-F	Internal memory fault (IO)	Press stop-key. If fault persists, consult your supplier.
dAtA-E	Internal memory fault (DSP)	Press stop-key. If fault persists, consult your supplier.
F-Ptc	Motor PTC thermistor trip	Connected motor thermistor over temperature, check wiring and motor.
0-hEAt	Drive internal temperature too high	Drive ambient temperature too high, check adequate cooling air is provided.
Out-F	Output fault	Indicates a fault on the output of the drive, such as one phase missing, motor phase currents not balanced. Check the motor and connections.

## 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. Use regular oil intended for gearboxes. See oil change instructions on page 9.

## SERVICING THE FLEXIBLE SHAFT & ITS OUTER CASING

Prior to shipping the flexible shaft is pre-treated with liquid paraffin oil (non-hazardous) and the casing replaced. Always inspect the condition of the shaft and its outer casing regularly. Also, inspect at least every fifth working day that the shaft is well attached under the hand guard at the machine end. If the twine of the shaft has opened from one end to the other so that there are visible holes in the shaft, the entire shaft has to be replaced.

Lubricant can be added between the flexible shaft and its outer casing when the shaft is attached to the machine. In order to add oil the cable needs to be removed from the reel. The shaft needs to be taken out from outer casing about 1 –1,5 m and oil needs to be added on the other side inside the cavity. No more than 7-11 ounces (aprx. 200-300 g) will be required for the entire shaft. Too much oil can cause strain on the cable. After oil is poured, the free shaft end should be pushed through the outer casing. The shaft will push the oil evenly inside the outer casing. Connect the shaft to the machine and rotate with low rotation speed so shaft will push excess oil outside. Use a mat to protect the work area under the machine to prevent damage to floors.

Keeping the shaft well lubricated will prolong its life span and decrease the friction caused by the shaft when it turns around. Lower friction will decrease the burden caused to the motor.

If preferred, the shaft can be taken out of its outer casing for lubrication.

**Appropriate oil to use:** Merkur WOP 240 PB

## CHANGING THE FLEXIBLE SHAFT

Only use the shaft and its outer casing specified by the manufacturer of the machine. Order the replacement shaft from your reseller. The flexible shaft is pre-treated with paraffin oil and the casing replaced prior to shipping.

1. Loosen the bolts holding the hand guard and remove the hand guard.
2. Loosen the screws in the shaft socket that hold the shaft. Pull the old shaft out of the machine.
3. Insert new shaft. When inserting the shaft inside the shaft socket, verify that the shaft goes all the way to the end. Tighten the screws.
4. Make sure that strain relief is attached and contacts the shaft socket before attaching the hand guard.
5. Mount the hand guard. Tighten the bolts to 8 Nm.

## CHANGING OIL IN THE BEVEL GEAR

The oil should be changed after every 1000 hours of use or 12 months.

1. Dismount the gear guard and the hand guard.
2. Remove the shaft socket from the shaft.
3. Loosen the bolts holding the bevel gear.
4. Pull the bevel gear away from the motor following the axle of the motor.
5. When the bevel gear has been dismantled, loosen the oil screw (there is only one screw on the gearbox).
6. Pour the old oil out and add the new oil.
7. Reassemble the bevel gear by repeating the previous steps in reverse order.

**Appropriate oils to use:** Shell omala 100 or Agip blasia 100 or Tamoil ep 100

**In case there is problem that you cannot solve using this manual, please consult your reseller or the manufacturer!**

## ACCESSORIES/SPARE PARTS

Use only the machine manufacturer's original 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.

### Accessories

1. Smart Cutter™ lateral cutters
2. Twister lateral cutters
3. Smart Sweeper
4. Cyclone & Original grinding chains
5. Special drill heads
6. Smart Crusher
7. Smart Spider
7. Flexible shaft 11m/36' extension 18mm / ¾ inch with outer casing

### Spare parts

1. Flexible shaft 18mm / ¾ inch with outer casing (standard with Maxi Miller Power Plus)

## PRACTICAL TIPS & SAFETY ADVICE

Here are some useful tips on how to get the most out of your Picote system. Always use the recommended tools for maintenance to avoid personal injury.



### SHAFT ROUNDER



The shaft rounder smooth's the end of the flexible shaft, preventing the user from being cut by the otherwise sharp metal edge .



### CUTTING THE FLEXIBLE SHAFT



Always inspect the flexible shaft before each use. If there are potential weak points or the shaft is damaged, cut off the damaged length using an angle-grinder. This should be done outside in a clear area as the process will generate sparks.



### ADDING A VISUAL MARKER FOR SAFETY



For your own safety attach a visual marker (tape) to the outer casing of the flexible shaft. Place it around half a meter from the end point of the shaft. The mark will indicate the tool's location and prevent possible injuries when a tool is removed from the drain, including injury by rotating parts.





## WARRANTY POLICY AND PROCEDURE

### Limited Warranty:

Picote warrants to the original End User that the Spare Parts installed into repaired equipment, whether the Spare Parts are under warranty or regular repair service, and if such End User will operate in accordance with and substantially conform to their published specifications when shipped or otherwise delivered to the End User and for a period of one (1) year except for electric motors for which the warranty period shall be six (6) months, provided, however, that Picote does not warrant any claim or damage under this Warranty if such claim or damage results from:

1. Consumable parts included the Products (such as brushes) or normal wear and tear resulting from use of the Products,
2. Product overload or overheated motor,
3. Regular periodic maintenance of Products,
4. Misuse, neglect, or improper installation or maintenance of the Products, or use of Products not for their intended purpose,
5. Products that have been altered, modified, repaired, opened or tampered with by anyone other than Picote or Authorized Picote Service Center, or unsuitable or unauthorized spare parts, accessories or third party products when using the Products or;
6. The use of the Products not in compliance with their respective Documentation, user manuals, safety and maintenance instructions, and any usage restrictions contained therein, or
7. Accident, fire, power failure, power surge, or other hazard.

Otherwise, the Products are sold AS IS. End User is responsible for using the Products within their specifications and instructions as contained in the Documentation. Picote warrants only the parts and does not give any warranty to the End User for any installation or maintenance done by Service Center.

EXCEPT AS SPECIFIED IN THIS WARRANTY, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, SATISFACTORY QUALITY OR ARISING FROM A COURSE OF DEALING, LAW, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW. TO THE EXTENT AN IMPLIED WARRANTY CANNOT BE EXCLUDED, SUCH WARRANTY IS LIMITED IN DURATION TO THE WARRANTY PERIOD. BECAUSE SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, THE ABOVE LIMITATION MAY NOT APPLY. This disclaimer and exclusion shall apply even if the express warranty set forth above fails of its essential purpose.

### Notice of Warranty Claims:

The End User must contact Picote's Service Center promptly if it suspects that it has a valid warranty claim with respect to the Maintenance, Repair or Spare Parts. To be valid, the claim must be made within the applicable warranty period.

No Service request will be handled until Picote receives a completely filled Service Request Form.

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## INNOVATIVE THINKING

In Finland, Picote is a very well established contracting company, successfully rehabilitating thousands of drains and sewer pipes with trenchless methods since 2008.

By focusing on in-house research and development, our company also offers a growing range of unique, patented and patent-pending products, which are now available to the international market.

These resourceful tools and machinery have been devised and perfected as a direct result of feedback and evaluation from worksites.

As a contractor ourselves, we know that durability, reliability and safety do matter at the work site, and that value for money is also a priority. That's why at Picote we are proud of our innovative, quality products.

*Designed for professionals, by professionals.*

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