# PICOTEMAXI COATING PUMPLIFE FOR PIPESPicote Brush Coating™ System

# **OPERATION, SAFETY & INSTALLATION MANUAL**

This operations manual is for the Picote Brush Coating <sup>™</sup> System using the Maxi Coating Pump and covers the equipment as well as the application process including the DC1000E 100% Solids Epoxy and Fast Cure Resins.





These instructions are for your personal safety. Always ensure that you have read and understood these instructions before using the Picote Brush Coating ™ System.

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To watch practical demonstration videos, take a course, or to download an electronic copy of these Instructions, please visit <u>www.picoteinstitute.com</u>. Please note that videos and courses are not intended as a replacement or alternative to this operating and safety manual, but only as an additional learning tool.

# **SAFETY INFORMATION**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



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

### Safety Symbols

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



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.

### Personal Protective Equipment (PPE)

Always use Personal Protective Equipment including suitable protective clothing, footwear, plus:



Suitable eye protection to protect against sewage, chemicals or dust from irritating eyes.

Suitable ear protection to protect against hearing loss.

Suitable heat and cut-resistant gloves to help prevent any hand injuries. Any open injuries or skin irritations should always be covered to avoid contact with sewage, chemicals or dust.

Suitable respirator to prevent any dust or fumes being inhaled or consumed, which could cause occupational asthma or dermatitis.

# **GENERAL MACHINE SAFETY INFORMATION**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

### 

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. For resin please download the MSDS Sheets from the Picote Institute.



#### 1. <u>Always wear eye and ear protection as well as heat and cut-</u> 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 personal protective equipment.

2. Make sure the pipe has been opened and ventilated to prevent any gases accumulating.

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 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 pipes containing asbestos fibres.

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 Picote Solutions. Accessories and spare parts should only be used in the manner intended and as described by Picote Solutions.

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 Picote Solutions shaft extension and connector.

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

#### **ENVIRONMENTAL**

Operational Ambient Temperature Range:	-10 $^{\circ}$ C to 50 $^{\circ}$ C (14 $^{\circ}$ F to 122 $^{\circ}$ F) frost and condensation free
Storage Ambient Temperature Range:	-20 °C to 60 °C (-4 °F to 140 °F) frost and condensation free
Maximum Altitude:	2000m or 6500 ft. Derate above 1000m or 3280ft: 1% / 100m or 328ft
Maximum Humidity:	95% non-condensing

#### TRANSPORT

Always remove the Smart Mixer from the Maxi Coating Pump and then remove the Maxi Coating Pump from the Miller for transport. Maxi Coating Pump should be transported in a car or other vehicle and laid down and secured with ratchet straps to prevent any sudden movements or accidents caused by hard braking or accident.

**Never transport the Miller with tool attached to the shaft**. Always retract the camera back to it's housing during transport. If using a pick-up or trailer to transport Picote Millers or Maxi Coating Pump always use a suitable cover on the unit to protect it from the elements

#### STORAGE

It is recommended that the Maxi Coating Pump and Picote Millers be stored indoors to protect them from rain and sunlight, and also in a constant ambient temperature. The best way to store the machines is using the same box that the machine has been shipped in.

If the Maxi Coating Pump or Picote Miller has been stored in an environment colder than +10 °C or 50 °F, the machine should be stood at room temperature for 24 hours before use.

If the Maxi Coating Pump or Picote Miller has been stored for long periods of time (over 2-3 months), it should be checked and tested according to the maintenance programme before use.

#### DISPOSAL

Maxi Coating Pump pump, electric wires and power supply can be disposed in Europe at Waste Electrical and Electronic Equipment (WEEE) collection points.

The Maxi Coating Pump frame can be recycled in metal waste collection points. Pump Housing, Delivery and Supply Hoses can be disposed of as plastic waste.

Dispose of unused Resin by mixing the product in a well ventilated location using a non-flammable container. The mixed product will generate heat while hardening. Follow the MSDS which can be found on the Picote Institute.

#### Always follow local waste handling rules and regulations.



#### Picote 100% Solids Epoxy Resin and Fast Cure Resin:

Refer to MSDS for Environment, Transport, Disposal and Storage, available from Picote Institute

# **CE DECLARATION OF CONFORMITY**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

Maxi Coating Pump is of series production and

#### Conforms to the following EU Directive:

#### 2006/42/EY

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

#### EN 809 + A1/AC, EN 60204-1:2018

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

Picote Solutions Oy Ltd, Pienteollisuustie 24 06450 Porvoo, Finland

1st January 2018

Katja Lindy-Wilkinson C.E.O. Picote Solutions Oy Ltd Pienteollisuustie 24, 06450 Porvoo, Finland

# **Approvals & Certifications**



Picote Brush Coating System<sup>TM</sup> has been granted with WRc Approved Certificate for non-potable and waste water application for pipe diameters DN32  $(1^{1}/_{4})$  to DN300 (12").

Certificate Number: PT/431/0918



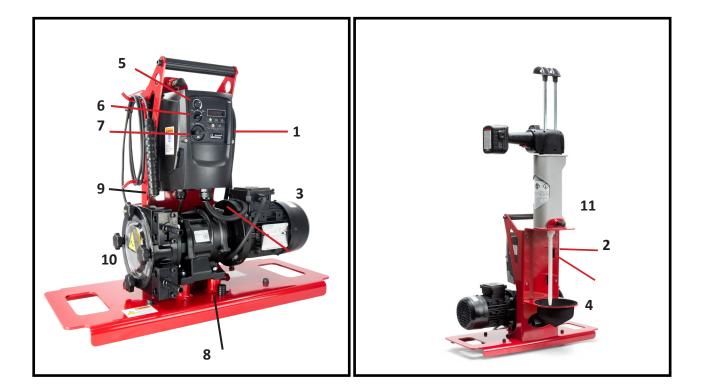
ASTM approval of Picote DC1000E 100% Solids Epoxy when used to create a monolythic semi-structural repair of decayed and damaged pipelines. Designed exclusively for the Picote Brush Coating<sup>™</sup> System.



**NSF 61.5** certifies that the white DC1000E Picote 100% Solids Epoxy can be utilised for potable water lines over DN100 / 4" diameter.

### **PICOTE MAXI COATING PUMP**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



### **General Description**

- 1. Power Cord
- 2. Resin Supply Hose Holder
- 3. Motor
- 4. Resin Cup Location
- 5. Speed Control
- 6. Reverse/Forward
- 7. On/Off Button
- 8. Release, locks pump to Miller
- 9. Locking Operator Control Button (LOC)
- 10. Pump Housing
- 11. Smart Mixer Platform

### **PICOTE MAXI COATING PUMP**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

#### Intended Use

This machine is intended for the following uses:

- 1. Coating pipes from DN70-DN300 / 3"- 12"
- 2. Cleaning sewers and drains with a degreaser.

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

SIZE	HOSE	RANGE	ROTATING SPEED	OUTPUT (kw	) POWER SOURCE	WEIGHT
41x42x54.4 cn	n 8/10mm	Max 30-39m	Depends on pipe diameter	0.25	110v or 230v	23 kg
26x16.9x21.7'		Max 100-130ft				51 lb

VoltageEnsure that the supply voltage is correct. The voltage of the power<br/>source must match the value given on the nameplate of the machine.<br/>Available in 230v and 110v.

**Power Supply** The machine should only be connected to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply.



This machine has a hand-held Locking Operator Control button or "LOC". When the control button is pushed the pump is engaged and will operate until depressed.

# PICOTE MILLERS | 12mm (1/2") Shaft

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Note: Maxi Coating Pump can also be used with the Midi Miller and Super Midi Miller



Please refer to the Maxi Miller manual for more information



#### **General Description**

- 1. Shaft Reel
- 2. Frame
- 3. Flexible Shaft
- 4. Motor & Bevel Gear (not shown)
- <sup>5.</sup> Emergency Stop Bottom (red)
- <sup>6.</sup> Power Switch
- 7. Forward/Reverse
- 8. Speed Control
- 9. Foot Pedal—Operator Presence Control
- Hand Guard & Strain Relief / Inside Hand Guard (not shown)

#### **Intended Use**

This machine is intended for the following uses:

- Coating pipes from DN70-DN300 / 3"- 12"
- Cleaning and unblocking pipes, drains and sewers by grinding.
- Descaling pipes.
- Reinstating branches in sewers and drains by drilling and grinding.
- Cutting excess length of cured linings.
- Removing concrete deposits.
- Removing metallic inserts.

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

# PICOTE MILLERS | 12mm (1/2") Shaft

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Note: Maxi Coating Pump can also be used with the Midi Miller and Super Midi Miller

Please refer to the correct Miller manual for more information

MAXI MILLER 12/30							
SIZE	SHAFT	RANGE	ROTATING SPEED	OUTPUT (kW)	POWER SOURCE	WEIGHT	IP CLASS
1150x850x489	12mm	30m	500-1500rpm	110V:1.13kW	110v or 230v	89kg	54
45x34x19"	<sup>1</sup> / <sub>2</sub> "	100ft		230V:1.5kW		196lb	
			SUPER MID	I MILLER 12/20			
SIZE	SHAFT	RANGE	ROTATING SPEED	OUTPUT (kW)	POWER SOURCE	WEIGHT	IP CLASS
1122x712x466	12mm	20m	500-1500rpm	110V:1.5kW	110v or 230v	69kg	54
44x28x18"	<sup>1</sup> / <sub>2</sub> "	65ft		230V:1.5kW		152lb	
			MIDI M	ILLER 12/12			
SIZE	SHAFT	RANGE	ROTATING SPEED	OUTPUT (kW)	POWER SOURCE	WEIGHT	IP CLASS
1060x732x405	12mm	12m	1100-1600rpm	110V:1.05kW	110v or 230v	48kg	
30x26x12"	<sup>1</sup> / <sub>2</sub> "	39ft		230V:1.05kW	/	106lb	

When is use, always lay the machine down horizontally on the floor as shown above. When not in use, some non-hazardous Picote Flexible Shaft Lubricant might leak from the hand guard.

#### VOLTAGE

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



#### FOOT PEDAL

The machine has an Operator Presence Control or 'OPC'. When the control is noheld down, the machine stops.



#### **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 and completely unplug the machine when the machine accessories (e.g. Cutter or Grinding



#### Maxi Coating Pumps have been pre-set by the manufacturer

Picote Solutions accepts no liability for failures or accidents caused by tampering with or changing of the manufacturer settings. The control box has been pre-programmed and requires no additional adjustments.

Opening the box or changing the factory settings may cause damage and will void the warranty

### **REQUIRED PARTS**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

### First make sure you have all of the required parts!

PRODUCT NAME	PRODUCT NUMBER	DESCRIPTION	INFORMATION
1. MAXI COATING PUMP	2220200000	Maxi Coating Pump EU 230v	Hoses, brushes & other parts
			sold separately
	2220200001	Maxi Coating Pump US 110v	
	2220200007	Maxi Coating Pump 110v	
2. MAXI MILLER	3560032012	Maxi Miller 12/30, 30m 230V	12mm / 1/2" Shaft
			· · ·
	3560032012UK	Maxi Miller 12/30, 30m 110V	12mm / 1/2" Shaft
	3560032012US	UK Maxi Miller 12/30, 100ft 110V	12mm / 1/2" Shaft
	330003201203	US	12////// 1/2 Shujt
	3560042012	Maxi Miller Plus 12/30, 30m	Control box with 5m cord.
		230V	Special order only with longer
			lead time.
	3560042012UK	Maxi Miller Plus 12/30, 30m	
		110V UK	
	3560042012US	Maxi Miller Plus 12/30, 100ft	
		110V US	
3. SUPER MIDI MILLER	3551031220	Super Midi Miller 12/20, 21m	12mm / 1/2" Shaft
		230V	
	3551031220UK	Super Midi Miller 12/20, 21m	12mm / 1/2" Shaft
		110V UK	
	3551031220US	Super Midi Miller 12/20, 65ft	12mm / 1/2" Shaft
		110V US	
	9550004000	Maxi Pump Bracket for Super	
		Midi	
4. HOSES	2220200005	Delivery Hose 200m/650ft	
		1/2" Colour-Orange	
	2220200003	Pumping Hose Package	Supplied in packages of x10
	90000902	Hose Clamps 16mm	

# **REQUIRED PARTS**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

PRODUCT NAME	PRODUCT #	DESCRIPTION	INFORMATION
5. SHAFT	1312021125033	Maxi Miller spare shaft,	
		12mm / 1/2" with thick outer	
		casing	
	93212322125	Sleeve 2 Plastic 12mm (1/2")	For Maxi Miller and Shaft
		thick	Extension
	1312021125010	Flexible Shaft 12mm Thick	Shaft Extension for Maxi
		Casing / 10 metres	Miller or Super Midi Miller
	1312021125022	Super Midi spare shaft,	
		12mm / 1/2" with thin outer	
		casing	
	93212321125	Sleeve 2 Plastic 12mm (1/2")	For Super Midi Miller
		thin	
	1313002125	Shaft Connector 12mm/12mm	
6. COATING BRUSHES & STOPPERS	2120012100	Coating/Cleaning Brush	Please check page 20 for
		100mm 4" for DN70 3" pipe	coating brush selection
www.w.w.th			guide.
	2120012125	Coating/Cleaning Brush	
		125mm 5" for DN100 4" pipe	
	2120012150	Coating/Cleaning Brush	
		150mm 6" for DN100 4" pipe	
	2120012175	Coating/Cleaning Brush	
		175mm 6.9" for DN125 6"	
		pipe	
	2120012200	Coating/Cleaning Brush	
		200mm 8" for DN150 6" pipe	
senti a substantina su	2120012225	Coating/Cleaning Brush	
		225mm 9" for DN175 7" pipe	
	2120012250	Coating/Cleaning Brush	
		250mm 10" for DN200 8" pipe	
	2120012275	Coating/Cleaning Brush	
		275mm 11" for DN225 9" pipe	
0 B	2120012300	Coating/Cleaning Brush	
		300mm 12" for DN250 10"	
		pipe	
	2120012350	Coating/Cleaning Brush	
		350mm 14" for DN300 12"	
	90000756	Brush Stopper 12mm ( <sup>1</sup> / <sub>2</sub> ")	Stopper for securing brushes

# **REQUIRED PARTS**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

PRODUCT NAME	PRODUCT #	DESCRIPTION	INFORMATION
7. PICOTE 100% SOLIDS EPOXY	2110001001	Picote Dual Colour Resin Kit, 5.58kg / 12lbs	6 Cartridge Kit (3 White, 3 Dark Grey) with 8 Tips & 3 Nuts.
	2110001006	Picote Grey Resin Kit, 5.58kg/12lbs	6 Grey Cartridges with 8 Tips & 3 Nuts
	2110001005	Picote White Resin Kit, 5.58kg/12lbs	6 White Cartridges with 8 Tips & 3 Nuts
SD5823 HELRERY HOSE LUR MINISTERIONAL (MIN)	2110001003	Delivery Hose Lube 1 QT / 946ml	Special Lubricant to reduce friction
	2220200004	Coating Resin Cup, 10pcs	
8. PICOTE SMART MIXER	2130001001	Picote Smart Mixer 2.0	Battery powered epoxy mixer. Please see the Smart Mixer operating manual for more information.
	213000002	Nut (pack of 10)	
	2130000001	Tip (pack of 10)	
9. DRAIN CAMERA		Use your own mini CCTV camera system	Larger cameras will cause issues with weight and navigation through bends
10. OTHER ITEMS	PVC Tape	Rags & Bucket with Lid	Make sure you have plenty of rags for the clean-up process.
	Acetone	Razor Knife	
	Nitrile Gloves	7mm Nut Driver for Hose Clamps	
	Spare Hose Clamps	3, 5, 6mm Hex Key for Scews	
	Scissors		

### **PREPARING THE ORIGINAL PIPE**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Substrate preparation is one of the most crucial steps in the coating process as specialized coating resin is designed to bond to the host pipe. Be sure to remove all scale, grease, dust, standing water and any other debris completely from the pipe before coating. If coating plastic pipe be sure to thoroughly abrade with Picote Smart Cutter<sup>TM</sup> grinding panels.

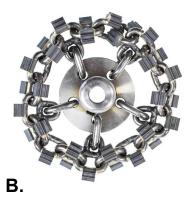


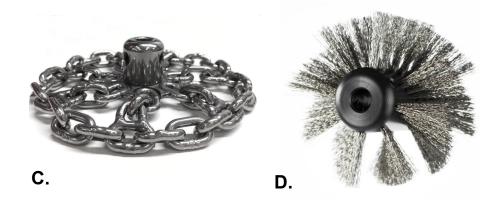


Thoroughly clean the host pipe. Use Original (**A**) or Cyclone (**B**) chains with carbides for cast iron pipes and flush with water. For PVC pipes, use the special PVC chains (**C**). Use a wire brush (**D**) to remove final dust and other remaining particles.



Α.





**OPTIONAL STEP:** For pipes with excessive build-up of fats, oil or grease (FOG) a degreaser may be necessary. This can be pumped into the pipe during cleaning if necessary using the coating pump system and an Eco-friendly degreasing agent.

# PREPARING THE ORIGINAL PIPE FOR CLEANING

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



When necessary, run the Smart Cutter<sup>TM</sup> with side grinding panels through the pipe to create a rough surface and to allow for the resin to have the best possible bond to the pipe wall.





The pipe MUST be dry before continuing with the coating setup. Use the Picote Heater to expedite the process.



# Once the original pipe is completely clean, move on to the Coating System Assembly



# **COATING SYSTEM ASSEMBLY**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

# **Required Tools &**

**Maxi Coating Pump Nut Driver Picote Hose Lube Resin Cup Delivery Hose Resin Supply Hose** Hose Clamps 16mm **Pumping Hose Package Scissors Tubing Cutters** Hex Key 3, 5, 6 Silicone Grease **Hose Connectors** Towels Gloves **Chemical Spill Kit** 



# **BEFORE BEGINNING ASSEMBLY**



### DANGER

Risk of serious injury from rotating parts!

- Have plenty of disposable nitrile gloves and towels available. Wearing a double layer of disposable gloves is useful when applying lubricant.
- Be sure that all machines have the required power supply.
- Test machines and power source to ensure adequate and safe operation. Read Machine Operating Manual.

# COATING SYSTEM ASSEMBLY | THE PUMP

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Assemble the black resin pump hose by inserting a hose connector on each end. A small amount of silicone grease should be applied to the thicker end of the connector in order to insert into the hose. It is important to make sure the hose connectors are seated completely into the pump hose.









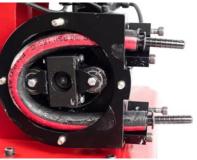


Once the pump hose is assembled, apply silicone grease to the outside. Then place the hose into the pump housing. **Note:** Do <u>not</u> insert hose into the roller assembly at this time.











Next reinstall and tighten the locking blocks making sure the pump hose connectors are positioned properly. **Note:** The locking block should fit into the groove on the hose connector.







# COATING SYSTEM ASSEMBLY | THE PUMP

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



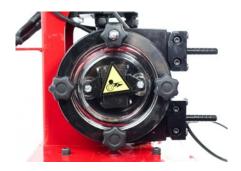
To seat the pump hose between the rollers and housing set-up, turn the pump <u>on</u>. Make sure the pump is set to forward direction and the speed dial is set to the slowest setting possible. Start the pump by engaging the trigger (button). Slowly push the hose into the housing starting from the top right going counter-clockwise until the hose is completely inside the housing.







Place the cover plate back on the pump housing, ensuring the cover is flush and can be secured evenly all around. Set the pump speed dial to **full speed** and test for proper suction by placing a finger over the end of the top hose connector. Positive suction should be obvious. If no suction is present the mounting blocks may need to be secured more tightly.







Cut 1.3m / 4.3ft of orange resin supply hose. The piece needs to be long enough to reach from the resin cup to the top hose connector. Connect to the top hose connector and secure with a hose clamp. Guide the other end through the guide holes and place in resin supply cup. Be sure there is a  $45^{\circ}$  cut on the end placed in the resin supply cup to allow for proper resin flow into the hose.



### **COATING SYSTEM ASSEMBLY | BRUSHES & DELIVERY HOSE**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

# **Required Tools & Parts**

Maxi Coating Pump Maxi Miller Delivery Hose Hose Clamps 16 mm Scissor Style Tubing Cutter Silicone Hose Grease Hose Connectors Nut Driver Allen Keys Towels



# **BEFORE BEGINNING ASSEMBLY**



Gloves

DANGER

Risk of serious injury from rotating parts!

- Have extra brush stoppers and hose connectors available.
- Use an angle grinder or portable band saw to cut Miller shaft if necessary.
- Have a roll of PVC tape available.

### **SELECTING COATING BRUSHES**

When choosing the appropriate coating brushes for your coating job, refer to the chart listed below. For the best results use brushes as least 2 sizes larger than the host pipe.

Recommended Coating Brush Diameters (Midi Miller / Super Midi Miller / Maxi Miller)						
Host Pipe Diameter	Front Coating Brush Diameter (Straight)	Front Coating Brush Diameter (Multiple Bends)	Rear Coating Brush			
DN70 (3")	100mm (4")	125mm (5")	75mm (3")			
DN100 (4")	150mm (6")	175mm (7")	150mm (6")			
DN125 (5")	175mm (7")	200mm (8")	175mm (7")			
DN150 (6")	200mm (8")	225mm (9")	200mm (8")			
DN175 (7")	225mm (9")	250mm (10")	225mm (9")			
DN200 (8")	250mm (10")	275mm (11")	250mm (10")			
DN225 (9")	275mm (11")	300mm (12")	275mm (11")			
DN250 (10")	300mm (12")	350mm (14")	300mm (12")			
DN300 (12")	350mm (14")	350mm (14")	350mm (14")			

The distance between the rear of the front brush and the front of the rear brush should be between 25mm to 50mm (1" to 2")

### **INSPECT THE SUPER MIDI OR MAXI MILLER SHAFT**

Flexible Shaft which has been damaged, frayed, separated or in any way compromised should be removed.



Cut the outer casing back leaving 180mm / 7" to 230mm /9" of exposed shaft. Alternatively **Tool Leaders** can be assembled and attached to the shaft using shaft connectors.





Place the brushes and brush stopper on the shaft. Bring the brush stopper to the end of the shaft and secure. Place first brush against back of the stopper and secure. Place second brush 25-50mm /  $1^{"}$ -2" behind the first brush and secure.

Note: Be careful not to strip the threads in the brushes when tightening the set screws.





### COATING SYSTEM ASSEMBLY | DELIVERY HOSE & CAMERA

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Attach delivery hose to the flexible shaft casing 50mm to 75mm / 2" to 3" behind the sleeve. Secure using PVC tape. Secure the delivery hose to the flexible shaft again by taping 250mm to 300mm / 10" to 12" behind the first.





Using your camera screen, position and attach the camera 100mm to 200mm / 4" to 8" behind the delivery hose ensuring the rear brush is visible in the camera monitor. In pipes DN100 / 4" and larger, it is recommended to tape the entire camera head and spring for easier clean-up. In smaller pipes it is recommended to leave the spring of the camera untapped in order to retain flexibility.







Once the hose set-up is completely assembled and the brushes are pushed to the far end of the pipe to be coated, cut the delivery hose and attach it to the bottom hose connector. Secure with 2 hose clamps.



### COATING SYSTEM ASSEMBLY | PREPARING THE RESIN

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

# **Required Tools & Parts**

MAXI COATING PUMP

**DUAL COLOUR 100% SOLIDS EPOXY** 

**SMART MIXER 2.0 & STATIC MIXING TIP** 

**NITRILE GLOVES** 

**RESIN CUP & BAG** 

**SCISSOR STYLE TUBING CUTTERS** 

TOWELS

ACETONE

WASTE BIN

CHEMICAL SPILL KIT

# **BEFORE BEGINNING PREPARATION OF RESIN**



- In case of spills or accidents have plenty of rubber gloves, towels, chemical spill kit and acetone readily available.
- Be sure to prepare all cartridges before pumping any resin. This will allow you to have a more efficient workflow.
- Save a few cartridge caps to reseal unused material.

<u>TIP: Resins have limited work time. Higher temperatures will decrease the work time. If resin is over</u> <u>29°C or 85°F upon installation it is recommended to chill the resin slightly.</u> If too cold the resin may become difficult to pump. Recommended installation temperature: +18°C (+65°F) to +27°C (80°F) Installation Temperature Range: +10°C (50°F) to +60°C (140°F) Resin Temperature: +23°C (74°F) to +25°C (77°F)



# **PREPARING THE RESIN**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



### **Resin Calculator**

Use the resin calculator to determine how much resin will be needed to complete all necessary coats. Refer to the chart below for recommended number of coats. The resin calculator can be downloaded from the <u>Picote Institute</u>.

Pipe Diameter	Number of Coats (Corrosion Resistance)	Number of Coats (Semi-Structural)	• A minimum of 4 coats need to be applied when the pipe is going to be cleaned
DN70 (3")	2	2	using High Pressure Water Jetting .
DN100 (4")	2	3 to 4	• Maximum Water Letting Prossure is 2600
DN150 (6")	2 to 3	4 to 5	Maximum Water Jetting Pressure is 2600 DOL on 100 Dec.
DN200 (8")	3 to 4	5 to 6	PSI or 180 Bar.
DN225 (9")	4 to 5	6 to 7	• A minimum of 3 coats is needed for
DN250 (10")	4 to 5	7 to 8	abrasion resistance.
DN300 (12")	5 to 6	8 to 9	



To best prevent contact with resin on skin, wear two sets of nitrile gloves on top of each other. The top pair can be then removed easily during the clean-up process to eliminate mess.

#### Before you begin preparing the resin for application, verify the following:

(A) The Picote Miller and Maxi Coating Pump are <u>ON</u>. (B) The Picote Miller speed is set between 950 to 1100 rpm.
(C) The Maxi Coating Pump is set to <u>full speed</u>. (D) The Picote Miller & Coating Pump are set to <u>rotate clockwise</u>.



There are 3 steps to setting up the resin cartridge. Always keep the cartridge upright to avoid resin leakage and possible premature mixing of resin.

- A. Choose the desired colour of resin for the first application. It is best to begin with the colour that gives the most contrast to the original pipe. If you are coating a light pipe, use the dark grey first, or in dark pipe use the white resin to start with.
- **B.** Remove the nut and cartridge cap and set aside for later.



# **PREPARING THE RESIN**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



- **C.** Cut the mixer tip back two notches. This will improve the flow of resin and allow cleaner operation of the Smart Mixer during pumping.
- **D.** Attach the static mixer tip and secure with the nut.







Once the mixing tip and nut are securely fastened, insert the resin cartridge into the Smart Mixer. Now change the speed dial on the Smart Mixer to the 4th setting and dose dial to its maximum setting. Refer to the Smart Mixer operating manual for further information.







Feather the trigger to allow the pistons to seat properly and evenly on the back of the cartridge. Once resin flows into the tip, slowly dose a small amount of resin (no more than 30g / 1 oz) into a cartridge bag and dispose of it. This will ensure the resin is mixed properly before allowing it to be pumped through the system.

#### TO COMPLY WITH NSF 61.5 THE FINAL LAYER OF DC1000E RESIN MUST BE WHITE

# **OPERATING THE COATING SYSTEM**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

# **Required Tools & Parts**

MAXI COATING PUMP DUAL COLOUR 100% SOLIDS EPOXY RESIN SMART MIXER NITRILE GLOVES SCISSOR STYLE TUBING CUTTERS TOWELS ACETONE WASTE BIN CHEMICAL SPILL KIT

# **BEFORE BEGINNING PREPARATION**



- Have plenty of gloves, towels, acetone and a chemical spill kit available in case of spills or accidents.
- Use a **digital infrared thermometer non-contact tool** to monitor the temperature of the resin while coating.
- Make sure you have a crew large enough to cover the cable, maintenance of Smart Mixer and the coating application!
- Have ice available for temperatures over +27 °C / +80 °F or heat if the temperature is below +15°C / +59°F.



If the piping system has several bends that are difficult to navigate or if the line set is difficult to push through the pipe, a special lubricant can be used to reduce friction. The **Picote Delivery Hose Lube** should added to a spray bottle to be easily applied onto the brushes.

**Please note:** The lubricant is highly specialized and designed to be absorbed into the coating resin without causing negative effects. <u>Any other lubricant WILL cause negative effects and can prevent</u> <u>the epoxy from bonding or curing properly.</u> Excessive use is not needed or recommended.



# **OPERATING THE COATING SYSTEM**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Once the resin supply cup is  $^{1}/_{3}$  full set the coating pump to full speed and begin pumping resin by pressing the coating pump control switch.







Watch the CCTV screen to observe the resin flow. **Note:** it may be difficult to see the flow of resin if the camera is turned upside-down. Watch closely and move the CCTV camera back and forth if necessary to check for resin flow.





Once resin can be seen flowing into the pipe, stop the pump and turn the speed dial down to the appropriate speed for the diameter pipe being coated. Normally the Miller rotation speed is between 950 - 1100 rpm (Pump speed can vary based on operator).



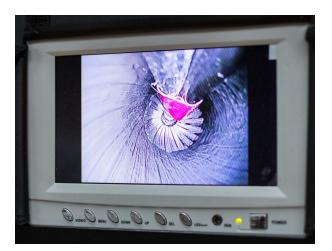


Start the coating from the far end of the pipe. Pump out resin and brush it on. Pay close attention to the flow of resin and lay a consistent bead into the pipe. Also, watch the bead (liquid ring) of the resin around the edge of the brush. Pull slowly and evenly for 1m / 3ft.





Stop the pump and brushes and push back into the pipe to visually verify the coating has covered all required areas evenly. Repeat this process in 1m / 3ft sections until the pipe is fully coated. Be especially careful around bends.



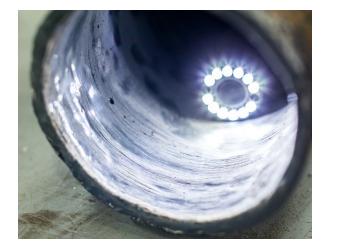


Once the first coat is complete wait 20 minutes and then apply heat (Picote Heater) to the pipe before starting the next coat to speed up dry time. Wait 2.5 hours or until dry to touch before applying the next coat.





If the next coat is applied after 12 hours, the original coat will need to be abraded with a Smart Cutter<sup>™</sup> first to make sure that the layers bond well. Clean the pipe using the nylon coating / cleaning brushes.







Dual Colour Method. Apply over existing colour with new colour. Verify that resin has been applied everywhere. The Dual Colour Method allows for clear visual verification during application that resin has been evenly distributed everywhere.



# **CLEANING UP THE COATING SYSTEM**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

# **Required Tools & Parts**

NITRILE GLOVES ACETONE PVC / DUCT TAPE WASTE BIN SCISSOR STYLE TUBING CUTTERS TOWELS OR RAGS SUITABLE BUCKET WITH LID NUT DRIVER HEX KEYS 3mm, 5mm, 6mm SPILL KIT



# **BEFORE BEGINNING CLEANING PROCESS**



- Have plenty of gloves, towels, rags, acetone and a spill kit available in case of spills or accidents.
- Have buckets ready for cleaning the brushes and camera.
- Have a roll of PVC or duct tape and a large waste bin nearby.



After the coating has been applied, turn the pump rotation to **REV** (reverse). This will cause the resin to flow back to the cup and reduce dripping resin during the cleaning process. When the resin stops dripping, place the brushes in a bucket of acetone that is deep enough to submerge to brushes, but not full to the top. Use a bucket lid with a hole or notch to allow for the hoses to pass through. Use a rag or towel to seal around the opening and avoid splashing of acetone outside of the bucket. For best cleaning, turn the Miller to full speed and run the brushes for a short time to rinse off the resin. Brushes and shaft should be clean enough for reuse after cleaning.







# STEP 2 🕨

Wipe the camera head and the Miller shaft clean with an acetone soaked rag. Once the resin is removed, cut away the tape and recoil the cleaned camera and Miller shaft into their holders.







Stop the pump from spinning in reverse and shut the system down completely. Isolate the power supply. Remove the cartridge from the Smart Mixer. Recap for later use if there is unused material in the cartridge.



Wipe down the delivery hose and remove from hose connector. Tape both ends to avoid dripping resin and set aside. Save hose clamps for later use.

# **CLEANING UP THE COATING SYSTEM**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Carefully remove the supply hose from the cup and wipe down the end.



Loosen the locking blocks and tape the ends of the pumping hose. Remove the pump hose from the pump housing and dispose of it.

STEP 7

Empty and clean the resin cup for later use / dispose of in accordance with local regulations.





Make final inspection to verify that the machine is clean and that everything has been wiped down.



Collect all the contained waste including used gloves, delivery hose, rags etc. into thick waste bags and seal properly. If large amounts of mixed coating resin remains allow it to harden separately, for example in the resin cup. Dispose according to local waste laws and regulations. Follow instructions from coating resin MSDS. Note! Mixed resin will generate heat while curing. Do not add large amounts of mixed resin inside the waste bags before it has cured. Keep the resin in a well ventilated location while curing.

# CURING

During the curing process, it is very impoprtant to prevent any dirt, debris or water from getting into the pipe. The pipe must stay clean and dry during the entire coating and curing process. Water can keep the resin from bonding properly. The resin is ready for additional coats once the surface is dry to touch.

#### **AMBIENT CURING**

Cure time: approximately 3 hrs at  $+21^{\circ}C / +70^{\circ}F$ .

#### **HEAT CURING**

Cure time: approximately 1.5 to 2 hrs if Picote Heater is used.

When adding heat the pipe should never exceed a constant temperature of +65  $^{\circ}C$  / +150  $^{\circ}F$ .

### ADDITIONAL COATS

Refer to the chart below to determine the recommended number of coats to apply. Additional coats should always be applied in contrasting layers. This will give a visual verification to each coat that is applied. If the previous coat sits longer than 12h before coated again, the pipe will need to be abraided with Smart Cutter<sup>™</sup>.

A minimum number of 4 coats needs to be applied to the pipes that will be cleaned using high pressure water jetting.

Maximum water jetting pressure is 2600 psi or 180 bar.

A minimum number of 3 coats is required for abrasion resistance.

Pipe diameter	Number of Coats	Number of Coats
DN32 (1¼")	2	2
DN40 (1½")	2	2
DN50 (2")	2	2
DN70 (3")	2	2
DN100 (4")	2	3 to 4
DN150 (6")	2 to 3	4 to 5
DN200 (8")	3 to 4	5 to 6
DN225 (9")	4 to 5	6 to 7
DN250 (10")	4 to 5	7 to 8
DN300 (12")	5 to 6	8 to 9



# **RETURN TO SERVICE**

Below are the proper wait times and conditions required before returning to service:

**4 HOURS:** Light use, water contact

24 HOURS: Pressure testing, completely cured

For potable water pipes the return to service is 25 hours and the final coat should be white

# **DUAL COLOUR RESIN INFORMATION**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

This operations manual is for the Picote Brush Coating <sup>™</sup> System using the Maxi Coating Pump with the DC1000E Epoxy. For information on the Fast Cure Resin please visit the Resources section of the Picote Institute.

#### **PICOTE 100% SOLIDS EPOXY**

Mixing ratio 2:1 / Pot life 25 min at 20°C / 68 °F

#### **Package Sizes:**

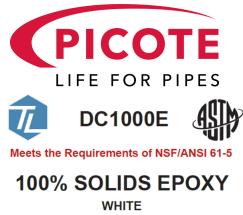
Cases contain 3 white and 3 dark grey cartridges each with 900ml of epoxy inside.

For large scale projects, cases of all white and all grey can be ordered.



**Re-coat** - 3 hrs at +21 °C / +70 °F **Restore flow** - 4 hrs. **Final Cure** - 24 hrs. Can be recoated within 12 hrs with no prep, <u>grinding panels must be used after 12 hrs</u>. **Installation:** +10 °C / +50 °F to +60 °C / 140 °F **Storage:** Room Temp +16 °C / +60 °F to +29 °C / +85 °F

Finished product: up to +82 °C / +180 °F constant



FOR PROFESSIONAL USE ONLY NET CONTENTS: 900 ml.

#### Storage Temperature:

Room Temp +16 °C / +60 °F to +29 °C / +85 °F **Shelf life:** 2 years from packaging when kept in accordance with storage instructions included in MSDS and Technical Data Sheet. WARNING! MAY CAUSEALLERGICSKIN OR RESPIRATORY REACTION. HARMFUL IF INHALED. MAY CAUSE EYE, SKIN RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF SWALLOWED.

FIRST AID: IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN IF IRRITATION DEVELOPS AND PERSISTS. WASH CLOTHING BEFORE REUSE. IF INHALED: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN. IF SWALLOWED: DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY A MEDICAL PHYSICIAN.

FOR PROFESSIONAL USE ONLY: USE THE NECESSARY SAFETY EQUIPMENT (NITRILE OR LATEX GLOVES, EYE PROTECTION) REVIEW SAFETY DATA SHEET (SDS) FOR FURTHER INFORMATION.



UN 2735, Amines, liquid, corrosive, n.o.s., (Tallow Amine), 8, PGIII

Industrial safety: Ready-measured product must not be in contact with skin (it adheres). Gas emissions: No harmful VOCs released during mixing or after hardening. Safety data sheet: Delivered with first order.

### MSDS AND OPERATOR CHECKLISTS FOR 100% SOLIDS EPOXY & FAST CURE RESINS AVAILABLE TO DOWNLOAD FROM PICOTE INSTITUTE

### MAINTENANCE

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

#### CARING FOR THE FLEXIBLE SHAFT (Midi Miller, Super Midi Miller & Maxi Miller)

#### See relevant Miller operating manual, available from the Picote Institute.

The flexible shaft is pre-treated with **Picote Flexible Shaft Lubricant** and the casing replaced prior to shipping. Always inspect the condition and apply oil between the flexible shaft and its outer casing when required.

If necessary remove the shaft from its casing to treat. When the casing has been replaced, rotate manually for even coverage.

#### FASTENER SCREWS FOR THE SMART CUTTER™ HUB

If you are unable to tighten the fastener screws properly, due to worn out hex socket heads, replace the fastener screws immediately. Otherwise, a brush or other tool can detach from the shaft during use, and fall into the pipe.

#### **PUMP & MILLER PARTS**

Keep parts clean. Where possible, remove resin from the Coating Pump, brushes, Miller and other parts carefully with acetone. See pages 29-31 for more information.

### PLEASE READ YOUR MILLER OPERATING MANUAL FOR DETAILED INSTRUCTIONS ON HOW TO PROPERLY MAINTAIN THE MACHINE

### MAINTENANCE

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

#### MAINTENANCE PROGRAMME

		Months			
Maintenance task	3	6	12	24	
Tightness of motor fixing			I	I	
Tightness pump assembly fixing			I	I	
Condition of pump assembly	I	I	I	I	
Condition of rollers	I	I	I	R	
Condition of frame & quick locks			I	I	
Condition of electric components	I	I	I	I	
Clean resin stains	Р	Р	Р	Р	
Operation of Smart Mixer	I	I	I		
Condition of hose clamps	R	R	R	R	

I: Inspect, fix or replace if needed.

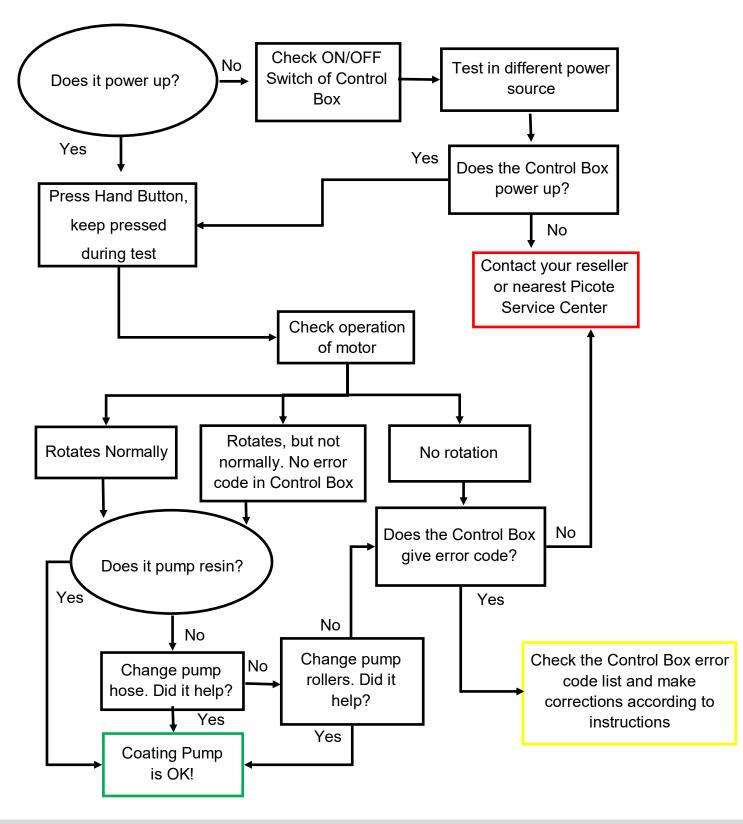
P: Perform, replace if needed.

R: Replace

#### WARRANTY PERIODS

Service Period	3 months	6 months	12 months
А			
В			
С			

- A Pump & spare parts, except
- B Electric motors
- C Service Centre repair work



If there is problem that you cannot resolve with this manual, please consult your Picote Reseller or Picote Solutions at <u>claims@picotesolutions.com</u>

#### TROUBLE SHOOTING

The control box of the Maxi Coating Pump 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 the control box. If a code other than those shown below is received, or if the fault does not correct, please write down the error code and contact your reseller or Picote Service Centre.

Fault Code	Description	Suggested Cause
no-F₋t	No Fault	Not required
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_t-trP	Motor thermal overload	The drive has tripped to prevent damage to the motor.
		Try not to overload motor. Ensure sufficient cooling air is free to circulate around the motor and that the entry and exit vents are not blocked or obstructed.
P5-trp	Power stage trip	Check for short circuits on the motor and connection cable.
0-volt	Over voltage on DC bus	Check the supply voltage is within the allowed tolerance for the drive.
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 (+50°C/+122F) . 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/+14F. Temperature must be raised over -10°C/+14F in order to start the drive.
E-trip	External trip	Normally closed contact has opened for some reason. 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 Picote Solutions.
dAtA-E	Internal memory fault (DSP)	Press stop-key. If fault persists, consult Picote Solutions.
Fan-F	Cooling Fan Fault	Consult Picote Solutions.
0-hEAt	Drive internal temperature too high	Drive ambient temperature too high, check adequate cooling air is provided. 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.
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.

#### Limited Warranty:

Picote warrants to the original End User that the Product purchased by 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 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 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 an authorized Picote Service Centre, 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.

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, NON INFRINGEMENT, 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.

# **TRAINING & CERTIFICATION**

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

#### **TRAINING CENTRES:**

Phoenix, Arizona, **USA** Porvoo, **Finland** 

Sandhurst, England, UK

Whitburn, Scotland, UK





Certified Installer Training for Picote Brush Coating™ is highly recommended to get the most out of your investment.

For Certified Installer Maxi Pump or Mini Pump Picote Brush Coating<sup>™</sup> Training you will receive a Picote ID Card for completion (UK only), which can be used for the tendering process and on site. Digital certificates are awarded for all certification trainings.

Virtual training is also possible.

Contact **training@picotesolutions.com** to find out about pricing and scheduling.

### **OFFER A 10 YEAR WARRANTY\***

When using the Picote Brush Coating<sup>™</sup> System as an option for semi-structural pipe rehabilitation you are providing a solution that can last 30-50 years. When you successfully complete Picote Certified Installer Training for either the Picote Maxi Coating Pump or Mini Coating Pump (or both) you will be able to offer a 10 year warranty on the Picote 100% Solids Epoxy Resin when you meet the outlined criteria. This provides assurance for the end-user as well as an advantage when you tender for work.

\*Terms & conditions apply, ask for details.

Revision number: Rev. 2 Author: Ville Hukkanen Accepted: Dawn Greig 090321

Please Contact: Your Reseller / Salesperson or Picote

www.picotesolutions.com





International Offices

Finland. United Kingdom. USA.

**Technical Support** support@picotesolutions.com

Claims

claims@picotesolutions.com

Production & R&D

Pienteollisuustie 24 06450 Porvoo, Finland support@picotesolutions.com

**Authorised Resellers:** 

www.picotesolutions.com/resellers