

# PICOTE MINI COATING PUMP Picote Brush Coating™ System

# **OPERATION, SAFETY & INSTALLATION MANUAL**

This operations manual is for the Picote Brush Coating ™ System using the Mini 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 equipment. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Picote Solutions Oy Ltd www.picoteinstitute.com

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To watch practical demonstration videos, take a course, or to download an electronic copy of these Instructions, please visit www.picoteinstitute.com. 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 or death.

#### **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)**

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



Suitable eye protection to protect against injuries and chemicals from irritating eyes.



Suitable heat resistant gloves. Do not use gloves which can become entangled.



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.



- 1. **Always wear eye protection and heat resistant gloves.** Other personal protective equipment, such as dust mask, chemical resistant gloves and protective clothing should be worn when necessary.
- 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 instructions in the Operation & Safety Manual.



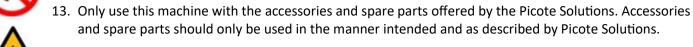
- 4. **Before each use** inspect the machine carefully for any potential break or damage. **Change damaged** parts immediately. It is especially important to check the end of the shaft for any signs of wear and tear, and repeat the process for the outer casing.
- 5. When in use, it is very important 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 & could burn 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.





- 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.

### **ENVIRONMENT, TRANSPORT, STORAGE & DISPOSAL**

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



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#### **ENVIRONMENTAL**

Operational Ambient Temperature Range: -10 to 50°C (14 to 122°F) frost and condensation free

Storage Ambient Temperature Range: -20 to 60°C (-4° 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 Mini Coating Pump and then remove the Mini Coating Pump from the Miller for transport. Mini Coating Pump should be transported in a vehicle or trailer laid down and secured with ratchet straps to prevent any sudden movements or accidents caused by hard braking or an accident.

**Never transport the Miller with tooling attached to the shaft**. On +C models, always retract the camera back to it's housing during transport. If using a pick-up or trailer to transport Picote Millers or Mini Coating Pump always use a suitable cover on the unit to protect it from the elements.

#### **STORAGE**

It is recommended that the Mini 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 Mini 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 Mini 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**

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

The Mini 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.

Always follow local waste handling rules and regulations.



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

Refer and Follow the SDS for Environment, Transport, Disposal and Storage, available on the Picote Resin Containers or on the 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:

Mini 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**



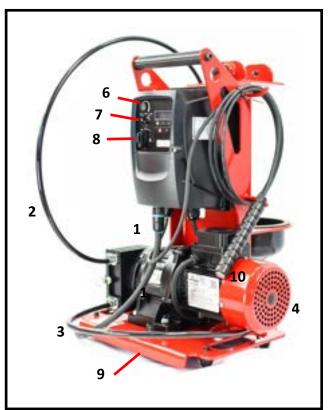
**ASTM approval** of Picote DC1000E 100% Solids Epoxy when used to create a monolithic semi-structural repair of decayed and damaged pipelines. Designed exclusively for the Picote Brush Coating™ System.



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

### **PICOTE MINI COATING PUMP**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE





### **General Description**

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

### PICOTE MINI COATING PUMP INTENDED USE

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

#### **Intended Use**

This machine is intended for the following uses:

- **1.** Coating pipes from DN32-150  $(1\frac{1}{4}-6^{"})$
- 2. Cleaning sewers and drains with a degreaser.

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

Technical Specifications				
Pipe Diameters	DN32-200 (1¼"-8")			
Max Range	22m (75')			
Power	UK/US: 110V, 15 Amp			
Output (kw)	0.18			
Weight	16kg (35.5 lbs)			
Size	41x42x54.4 cm			



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

Available in 230V and 110V models



**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 a 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 | 8MM (1/3") SHAFT

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

# **AWARNING**

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

Note: The Mini Coating Pump is designed to be used with the Mini Cleaner, Battery Mini Cleaner, Mini Cleaner +C, Battery Mini Cleaner +C, Mini Miller +C, Battery Mini Miller and Battery Mini Miller +C. Please read the Millers' Safety and Operation Manual.



### **General Description**

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

#### **Intended Use**

This machine is intended for the following uses:

- Mini Miller: Coating pipes DN50-150 (2-6")
- Mini Cleaner: Coating Pipes DN32-100 (1½-4")
- Cleaning and unblocking pipes, drains and sewers.
- Descaling pipes.
- Reinstating branches in pipes by drilling & grinding.
- Cutting excess length of cured CIPP linings.

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

### PICOTE MILLERS | 8MM (1/3") SHAFT

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



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Note: The Mini Coating Pump is designed to be used with the Mini Cleaner, Battery Mini Cleaner, Mini Cleaner +C, Battery Mini Cleaner +C, Mini Miller +C, Battery Mini Miller and Battery Mini Miller +C. Please read the Millers' Safety and Operation Manual.

	MINI MILLER 8/16					
SIZE	SHAFT	RANGE	ROTATING SPEED	OUTPUT (kW)	POWER SOURCE	WEIGHT
752x519x389	8mm	16m	500-2900rpm	110V:1.1kW	110v or 230v	27kg
29.6x20x15.3"	1/3"	50ft	500-2900rpm	230V:1.2kW	110v or 230v	59.5lb

	MINI CLEANER 8/16					
SIZE	SHAFT	RANGE	ROTATING SPEED	OUTPUT (kW)	POWER SOURCE	WEIGHT
1122x712x466	8mm	16m	500-1500rpm	110V:1.5kW	110v or 230v	26.5kg
44x28x18"	1/3"	50ft	500-1500rpm	230V:1.5kW	110v or 230v	152lb

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.



#### **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.



#### **FOOT PEDAL**

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



#### **EMERGENCY STOP**

There is an Emergency Stop Button (E-stop) on the machine. The power supply to the motor is cut off when the E-stop button is pushed. Always make sure the E-Stop Button is pressed and then completely unplug the machine when accessories (e.g. Cleaning Chains) are not inside the pipe.



#### Mini Coating System has 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 beyond standard control knob functionality



Opening the control box or changing the factory settings may cause damage and will void the manufacturer liability of any damage!

### **REQUIRED PARTS**

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



#### Mini Coating Pump

For 1¼-6\* Pipes For DN32-200 Pipes
75 ft range 22 metre range

Pipe Diameter: DN32-200 (1¼-6"). Max Range: 22m (75ft). Weight: 16kg (35.5 lbs.). Safely secures to Miller frame. Combine with the Mini Miller, Mini Cleaner, Super Battery Mini Miller or Super Battery Mini Cleaner for a portable compact system. Clean and coat with one simple system. Includes Resin Cup Package, 3x Hose

Product #	Model	
2220100002 for US	110v	
2220100001 for EU, AUS	230v	
2220100005 for UK	110v	

#### Hose Connector with Hose Clamps

2220100007



Includes Hose Connector & Hose Clamps (10mm & 13mm).

Brush Stopper 8mm (1/3") 900000338



Provides extra security to keep the Coating Brush on the shaft. Includes one Brush Stopper.

#### Mini Coating Pump Hose



For inside pump housing. Precise measurements required. Consult the operating manual. Pre-cut package pieces cut to 24cm, 50pcs per package.

Product #	Part
2220100004	Mini Coating Pump Hose 25m (82')
2220100011	Pre-cut Mini Coating Pump Hose (50 pcs)

#### Delivery Hose



For delivering Picote
Dual Colour Epoxy from
Resin Cup to the Mini
Pump and from the
pump to the pipe.

Product #	Part	
2220100003	Delivery Hose 25m (82')	
2220100009	Delivery Hose 200m (656')	

#### Hose Clamps



Use the 10mm Hose Clamps for the Mini Coating Pump Delivery Hose.

Use the 13mm Hose Clamps for the Mini Coating Pump Hose.

Product #	Part	
9500000382	Hose Clamp 10mm	
9500000381	Hose Clamp 13mm	

### REQUIRED PARTS CONTINUED

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

Picote Heater: Optional (but recommended)



#### Picote Heater

Decrease time between coats for Picote Brush Coating™ system. Includes 5m (16′) Heater Hose. Air outlet temperature is limited to +55°C (131°F). Automatic thermal cut-out in both motor and heating element. Max. air velocity up to 100m/s and max. air volume 2.20m³/min. Minimal noise: 78dBA.

Product #	Model/Part	
1350000024US	Picote Heater 110v	
1350000024	Picote Heater 230v	
1350000024UK	Picote Heater 110v	
9990001099	Heater Hose 5 metres (16')	

#### Picote Smart Mixer 2.0

For use with the Mini & Maxi
Pump. Battery powered
variable speed cartridge mixer
in carrying case with spare
battery, charger & additional
large piston. A highly useful tool for accurate and
proven mixing results when pumping the 2 part
epoxies for coating, Smart Fill, and trowelable
mastic used for repairing various structures.

Product #	Model/Part	
2130001001	for US	Smart Mixer 2.0 110V
2130001008	for US	Spare Li-ion Battery
2130001007US		Battery Charger
2130001001EU		Smart Mixer 2.0 230v
2130001001UK		Smart Mixer 2.0 110v
2130001020		Spare Li-ion Battery
2130001018EU		Battery Charger 230v
2130001018UK		Battery Charger 110v

# Delivery Hose Lube 0.95L (1 Quart)



To pre-lubricate inner surface of Coating Pump Delivery Hose to make pumping faster. If you find it difficult to push the brush/hose assembly through pipes with bends you can also apply a small amount to reduce pipe friction.

### Picote Dual Color Epoxy Kits



For use with the Mini and Maxi Coating Pump. 6 Cartridge Kit (6x White) or (6x Grey) with 8 Tips & 3 Nuts.

Product #	Model/Part		
2110001001W	Picote White Epoxy Kit, 12lbs 5oz		
2110001001G	Picote Gray Epoxy Kit, 12lbs 5oz		
2110001011	Picote Fast Cure White Epoxy Kit, 12lbs 50z		
2110001012	Picote Fast Cure Gray Epoxy Kit, 12lbs 50z		
2110001005	????????		

### Cartridge Tip & Nut

2110000001 2110000002



Maxi Pump & Mini Pump Package of 10 Static Mixing Tips. Package of 10 Nuts.

### **REQUIRED PARTS CONTINUED**

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

### Coating & Cleaning Brush



2120000220

Custom designed, high-quality and long lasting brush with nylon bristles for Picote Brush Coating™ and cleaning PVC pipes. Clean with acetone and reuse.

Product #	Brush & Pipe Size	Shaft Size
2120000037	1.5" for 1.25" Pipe	1/4"
2120000050	2" for 1.25" Pipe	1/3"
2120000075	3' for 2' Pipe	1/3*
2120000100	4" for 3" Pipe	1/3*
2120000125	5" for 4" Pipe	1/3*
2120000175	6.9° for 6° Pipe	1/3*
2120000220	8.7° for 8° Pipe	1/3°
Product #	Brush & Pipe Size	Shaft Size
2120000037	37mm for DN32	6mm
2120000050	50mm for DN32	8mm
2120000075	75mm for DN50	8mm
2120000100	100mm for DN75	8mm
2120000125	125mm for DN100	8mm
2120000175	175mm for DN150	8mm

220mm for DN200

OTHER ITEMS				
7. DRAIN CAMERA	Use your own mini CCTV camera system.  Larger cameras can cause issues with weight and navigation through bends.			
8. OTHER ITEMS	Resin Cups	Duct Tape	Have plenty of rags for the clean-up	
	Acetone	Rags & Bucket with Lid	process.	
	Nitrile Gloves	Razor Knife		
	Spare Hose Clamps	7mm Nut Driver for Hose Clamps		
	Scissors	3, 5, 6mm Hex Key for Screws		

8mm

### PIPE PREPARATION

#### 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™ side grinding panels.



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

















STEP 1 Clean host pipe very well. Use Original (a) or Cyclone (b) chains with carbides for cast iron pipes, followed by Picote Smart Cutter™ grinding panel, then flushed with water and dried. For PVC pipes, use PVC versions of these chains (c) and/or thoroughly abrade with Picote Smart Cutter™ grinding panels (e) followed by a wire brush (d) to remove dust & other remaining particles. Afterwards the pipe should be flushed and dried.







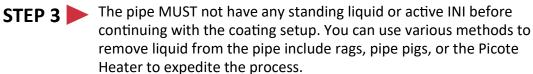




**OPTIONAL STEP:** For pipe with excessive build-up of fats, oils or grease (FOG) a degreaser may be necessary. This can be pumped into the pipe during cleaning if necessary using the coating pump system and ecofriendly degreasing agent.

STEP 2 ▶ When necessary, run the Smart Cutter™ 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 can be 'damp' but cannot have any liquids that would mix with the resin when coating.





Once the original pipe is completely clean, move on to the Coating Pump Preparation.



### **SETTING UP MINI COATING PUMP**

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

#### **Required Tools & Parts**

- Mini Coating Pump
- Nut Driver (7mm)
- Picote Hose Lube
- Resin Cup
- Delivery Hose (Black)
- Resin Supply Hose (Red)
- Hose Clamps (11mm & 13mm)
- Scissors
- Tubing Cutters
- Hex Keys
- Silicone Grease
- Hose Connectors
- Towels
- Gloves
- Chemical Spill Kit



#### **BEFORE BEGINNING ASSEMBLY**



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





#### **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 ALL equipment Operation & Safety Manuals.

### SETTING UP MINI COATING PUMP CONTINUED

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

Cut the Resin Pump Supply Hose to 248mm (9¾") STEP 1 or use the pre-cut length versions.

If cutting, ensure the ends are squared.

Prepare Hose Connectors and Hose Clamps to be STEP 2 inserted into Resin Supply Hose.

> There are 2 small hose clamps for black hose (10mm) and 2 larger hose clamps for red hose (13mm).

Insert hose connectors and rotate notched surface up STEP 3 while following the natural curve of the hose.

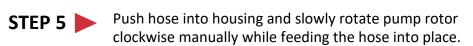
Ensure hose clamps are facing outward and inward.

Once positioned properly tighten the hose clamps.

This is important when installing into the pump housing.



With hose clamps facing outward, insert the connector STEP 4 into bottom of the housing key-way.



Tip! Silicone grease will make the process easier.



248mm / 9¾"





### SETTING UP MINI COATING PUMP CONTINUED

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

**STEP 6** Slide second connector into the top key-way.

Note: light pressure will be needed to pull the top connector into the key-way.



**STEP 7** Ensure hose clamps are facing inward and outward for easy access if required.



**STEP 8** Apply a small amount of a silicone grease to the underside of the hose at the bottom of the housing.

This allows the hose to always return to the centre after the rollers pass over it.



**STEP 9** Close housing door to secure connectors.

Pump door should remain closed at all times during the coating process!



Once the pump hose has been installed, turn on the pump and check that it is working correctly by first covering the top hose fitting with your finger.

If working correctly you should feel the hose sucking onto your finger.

Next place your finger over the bottom hose fitting.

If working correctly you should feel air blowing over your finger.

### SETTING UP MINI COATING PUMP CONTINUED

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

STEP 11 Cut a 1.2m or 47" piece of the black Delivery Hose to be used as a supply hose extension.

One end will require a 45 degree angle and the other should be a square cut.



**STEP 12** Attach the square end of the hose to the top hose connector on pump using a small hose clamp.





STEP 13 Take the 45 degree cut end and place in the resin cup at the back of the pump.

Run the hose through the retaining holes on the back of the pump.

You can help hold the hose in place with a small piece of tape or a short section of delivery hose wedged into the top retaining hole.



### MINI COATING PUMP | BRUSHES

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

### **Before Beginning Assembly**

#### **Required Tools & Parts:**

- Picote Coating Brushes (1 or 2)
- Picote Brush Stopper
- Picote Sleeve
- 2.5mm Hex Key
- Adjustable Wrench
- Have extra brush stoppers and hose connectors available.
- Have a roll of PVC tape available.



### STEP 1

Select the appropriate brush size for the pipe.

Always use a brush one pipe size larger than the pipe to be coated.

Note: Although one brush can be used in straight pipe, dual brushes are required for pipes with bends or transitions.

Recommended Coating Brush Diameters (Mini Cleaner / Mini Miller / Midi Cleaner)				
Host Pipe Diameter	Front Coating Brush Diameter (Straight)	Front Coating Brush Diameter (Multiple Bends)	Rear Coating Brush	Distance Between Brushes
DN32 (1 <sup>1</sup> / <sub>4</sub> ")	50mm (2")	N/A	N/A	N/A
DN40 (1 <sup>1</sup> / <sub>2</sub> ")	50mm (2")	50mm (2")	50mm (2")	40mm (1 <sup>1</sup> / <sub>2</sub> ")
DN50 (2")	75mm (3")	100mm (4")	50mm (2")	50mm (2")
DN70 (3")	100mm (4")	125mm (5")	75mm (3")	75mm (3")
DN100 (4")	125mm (5")	175mm (7")	100mm (4")	100mm (4")
DN150 (6")	175mm (7")	220mm (9")	150mm (6")	150mm (6")

Recommended Coating Brush Diameters (Super Midi Miller / Maxi Miller)**				
Host Pipe Diameter	Front Coating Brush Diameter (Straight)	Front Coating Brush Diameter (Multiple Bends)	Rear Coating Brush	Distance Between Brushes
DN70 (3")	100mm (4")	125mm (5")	100mm (4")	25-50mm (1-2")
DN100 (4")	150mm (6")	175mm (7")	150mm (6")	25-50mm (1-2")
DN150 (6")	175mm (7")	200mm (8")	175mm (7")	25-50mm (1-2")

<sup>\*\*</sup> If coating pipe diameters > DN150 (6") use the Picote Maxi Coating Pump

### MINI COATING PUMP | BRUSHES

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

STEP 2

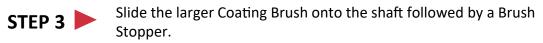
**TIP:** Always mount the brushes onto a Leader. This will make cleanup easier and extend the life of your Miller Shaft by reducing the number of times you will need to cut back the outer casing or excess shaft.

Always use a Sleeve on the outer casing of the Mini Miller shaft. If using the Mini Cleaner, generally no Sleeve is used.

Attach the smaller brush against the Leader Sleeve leaving roughly 6mm ( $\frac{1}{4}$ ") between the Brush hub and Sleeve and securely tighten the two 2.5mm set screws.

NOTE: Do not over tighten or screws my strip the Brush Hub.

The larger of the 2 brushes will be the brush at the tip of the shaft and is used for finishing the resin. Closest brush helps to spread the resin and stabilize the brush set during coating.



Bring to the end and tighten both securely.

Refer to the table on page 19 for the distance between the front and rear brushes and leave space between the brushes.

Do not use casing over the shaft between the brushes. This will allow for better flexibility around bends.











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

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

#### **Required Tools & Parts:**

- Delivery Hose
- Electrical Tape
- CCTV Camera with non-self leveling camera head
- Scissors/Tubing Cutters
- Hose Clamp



STEP 1 Attach the delivery hose 50mm (2") behind the Sleeve or end of the Shaft Casing with Electrical tape.

Exactly 300mm (12") away, apply a second piece of tape securing the delivery hose to the Miller Shaft.



Tape the camera head behind the Sleeve/end of Shaft.

Inspect the camera CCTV screen to ensure you have a good and full view of the Coating Brushes.

Once the brush is in full view on the screen, tape the camera head from the very end all the way to the end of the camera spring.

This will ensure the camera spring and connectors inside stay clean during the process.



**STEP 4** Once the camera is secure, insert the brushes in to the pipe opening.

Push in about 500mm (18") and tape camera, Delivery Hose and Miller Shaft together.



With the pump and Miller positioned as close to the opening as possible, cut off the delivery hose (square cut) and attach to the bottom connector on the pump.

Secure with the hose clamp.



ONCE THE DELIVERY HOSE & CAMERA ARE SET UP, YOU CAN BEGIN PREPARING THE RESIN.

### **RESIN PREPERATION**

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

#### **REQUIRED TOOLS & PARTS:**

- Mini Coating Pump
- DC1000E Dual Color 100% Solids Epoxy Resin
- Resin Cup
- Smart Mixer & Static Mixing Tip/Nut
- Nitrile Gloves
- Safety Glasses
- Scissors/Tubing Cutter
- Paper Towels/Rags
- Acetone
- Waste Bin/Trash Can
- Chemical Spill Kit

TIP: Resins have limited work time.

- Higher temperatures will decrease the work time.
- If too cold, the resin may become difficult to pump.
- If resin is over +29°C (85°F), we recommend chilling resin slightly.
- Resin Storage Temperature: +16 to +29°C (60-85°F)
- Jobsite Installation Temperature Range: +10 to +60°C (50-140°F)
- Resin Application Temperature: +20 to +25°C (68-77°F)

#### **BEFORE BEGINNING PREPARATION**















### Tips:

- Be sure to prepare all cartridges before pumping any resin. This will allow you to have more efficient workflow.
- Save a few cartridge caps to reseal unused material.

### **Personal Protective Equipment (PPE)**

- Always use Personal Protective Equipment including suitable protective clothing, footwear, suitable eye
  protection to protect against injuries and chemicals from irritating eyes, 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.
- A suitable respirator to prevent any dust or fumes being inhaled or consumed, which could cause occupational asthma or dermatitis.
- Have plenty of disposable nitrile gloves and paper towels available. Wearing a double layer of disposable
  gloves is useful when working with resins to avoid contact with the skin. The top pair can be removed easily
  during clean up to help eliminate mess.
- In case of spills or accidents a chemical spill kit and acetone readily available.

#### RESIN PREPERATION CONTINUED

#### 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 Picote Institute (www.picoteinstitute.com).

Pipe Diameter	Number of Coats (Corrosion Resistance)	Number of Coats (Semi Structural)
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

Minimum of 4 coats to be applied when the pipe is going to be cleaned using High Pressure Water Jetting.

Maximum Water Jetting Pressure is 2600 PSI or 180 Bar.

A minimum of 3 coats need for abrasion resistance.

### STEP 1

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

- 1. The Mini Miller or Mini Cleaner and Pump are ON.
- 2. Speed of Miller is set to **950 to 1100 rpm** (speed dial 2-3 on standard Mini Miller/Mini Cleaner).
- 3. Speed of the Mini Coating Pump is **set to full speed.**
- 4. Mini Coating Pump is set to rotate clockwise.
- STEP 2

To avoid contact with resin on skin, wear at least two pairs of nitrile disposable gloves. The top pair will be removed during the clean-up process, leaving you with a clean pair of gloves on.

STEP 3

There are four (4) stages to setting up the resin cartridge. Always keep the cartridge upright to avoid resin leakage and possible mixing of resin:

- Choose the desired colour of resin for the first application. Choose
  a colour that gives the most contrast to the original pipe colour.
  If you are coating a light pipe, use the dark grey first, or in dark pipe
  use the white resin to start with.
- 2. Remove the nut and cartridge cap, and set aside for later.
- 3. Cut the mixer tip back two notches. This will improve the flow of resin and allow for cleaner operation of the Smart Mixer during operation.
- 4. Attach the static mixing tip and secure with the nut.



### **RESIN PREPERATION CONTINUED**

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

STEP 4

Once the mixing tip and nut are securely fastened, insert the Epoxy Cartridge into the Smart Mixer.

Set the speed dial on the Smart Mixer to the 4th setting and dose dial to it's maximum setting.



STEP 5

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 cup or empty cartridge bag and dispose.

This ensures the resin is mixed properly.



### MINI COATING PUMP OPERATION

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

#### **REQUIRED TOOLS & PARTS:**

- Mini Coating Pump
- DC1000E Dual Color 100% Solids Epoxy Resin
- Smart Mixer
- Nitrile Gloves
- Safety Glasses
- Scissors/Tubing Cutter
- Paper Towels/Rags
- Acetone
- Waste Bin/Trash Can
- 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.
- Have ice available for temperatures over +29°C (85°F).
- Heat the resin cartridges if the temperature is below +15°C (59°F).

### MINI COATING PUMP OPERATION CONTINUE

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



Picote Delivery Hose Lubricant: If the pipe has several bends that are difficult to navigate or if the coating assembly is difficult to push through the pipe, Picote Delivery Hose Lubricant can be used to reduce friction. The lubricant should added to a spray bottle and then lightly applied as the assembly is being pushed into the pipe.

Please note: The lubricant is highly specialized and designed to be absorbed into the coating resin without causing any negative effects.

Any other lubricant WILL cause negative effects and can prevent the epoxy from bonding or curing properly. Excessive use is not needed nor recommended.



After priming the static mixing tip, allow the resin to begin filling the resin cup to no more than 1/4 full. Filling the cup too full will generate heat too quickly and reduce the overall working time.

#### STFP 1



 Once the cup is 1/3 full, begin priming the delivery hose.

Set the variable speed dial on the pump to full speed and engage the pump to begin priming the delivery hose.





**STEP 2** Watch the CCTV screen for 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 camera and rotating shaft back and forth if necessary to check for resin flow.



### MINI COATING PUMP OPERATION CONTINUED

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

STEP 3

Once resin can be seen flowing, stop the pump and turn the variable speed dial down to the appropriate speed for the pipe diameter.

Normally the recommended installation Miller operating speed is between 950-1100 rpm (speed dial 2-3 on standard Mini Cleaner or Mini Miller).



STEP 4



Start coating from the far end.

Pump out resin and brush it on.

Pay close attention to the flow of resin and lay a consistent bead of resin into the pipe.

Also, watch the bead of the resin around the edge of the brush.

Pull slowly and evenly for 1m (3 ft).



STEP 5



Stop the pump and brushes and push back into the pipe to visually verify coating has covered all areas evenly.

Repeat this process in 1m (3 ft) sections until the pipe is fully coated.

The brushes should always be rotating when being pulled through the pipe and stationary when being pushed into the pipe.



STEP 6



Average coat thickness is 0.5 to 0.7mm (.02-.03").

Carefully inspect that the resin covers the pipe everywhere. Be especially careful around bends.

STEP 7



To speed up drying time, twenty (20) minutes after the first coat is complete apply heat using the Picote Heater to the pipe before starting the next coat.

Please have a look at page 33 for more information about additional coats.



### MINI COATING PUMP OPERATION CONTINUED

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

STEP 8 If the next coat is applied after 12 hours, the prior coat will need to be abraded with a Smart Cutter™ first to make sure that the layers bond well.



STEP 9

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
- Safety Glasses
- Acetone
- · Bucket with Lid
- PVC / Duct Tape
- Waste Bin/Trash Can
- Scissors/Tubing Cutters
- Towels or Rags
- Nut Driver (7mm)
- Hex Keys
- Drill
- Drill Bit (5mm)
- Chemical Spill Kit



#### **BEFORE BEGINNING CLEANING PROCESS**



 Always use safety glasses, nitrile gloves and other PPE as required.



• 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.





### **CLEANING UP THE COATING SYSTEM cont.**

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

When you have finished coating, turn the pump rotation to reverse. This will pull the resin back to the cup and reduce resin dripping during the cleaning process.

STFP 2

When the resin stops dripping, put the brushes in a bucket of acetone. Cover the opening and run brushes for a short time to rinse off resin.

Brushes and cable should now be clean enough to reuse later.

Wipe the camera head and Miller shaft clean with an acetone soaked rag.



STEP 3 Cut away tape then recoil the cleaned camera and Miller cables into their holders.



**STEP 4** Stop the pump from spinning in reverse and shut the system down completely.

Turn off the power to the Mini Coating Pump.

Remove cartridge from the Smart Mixer.

Recap for later if there is unused material in the cartridge.



### **CLEANING UP THE COATING SYSTEM cont.**

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

STEP 5 Wipe down the delivery hose so as not to make a mess and remove the pump hose from the housing.



**STEP 6** Carefully remove the suction hose from the cup and wipe down the end.

Watch for drips and tape the end closed if necessary.



**STEP 7** With the entire hose set removed from the pump, cut away the hose connectors and clamps.

Remove hose clamps and carefully cut away hoses and dispose of them.

Hose connectors can be cleaned with acetone and a small wire brush or cotton swab, or they can be allowed to cure and drilled out later.







### **CLEANING UP THE COATING SYSTEM cont.**

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

#### STEP 8



You can empty any remaining Epoxy in the resin cup into the waste bin / trash can. Then wipe the container clean with acetone so that it can be used again later.

Or allow the resin to harden, and dispose of the resin cup.



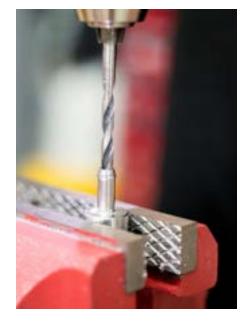
#### STEP 9



If drilling, clamp the connector in a vise or hold tightly with locking pliers.

Carefully drill the hardened resin out of the centre entirely.

Save clamps and connectors for reuse later.



### STEP 10

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 was left, let it harden separately, for example, in the resin cup. Dispose according to waste laws and regulation.

Follow instructions from coating resin SDS.

NOTE! Mixed resin will generate heat while curing.

Do not add large amounts of mixed resin inside the waste bags before it has cured and keep the waste resin in well ventilated location while curing.

### **CURING & ADDITIONAL COATS**

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

#### **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 3-4 hrs at +21°C (70°F).

**HEAT CURING**: Cure time: approximately 2 to 2.5 hrs if Picote Heater is used.

When adding heat the pipe should never exceed a constant temperature of +65°C (150°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 12 hours before coated again, the pipe will need to be abraided with Smart Cutter $^{TM}$ .

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 (Corrosion Resistance)	Number of Coats (Semi Structural)
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



#### 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 final coat should be white and return to service is 24 hours.

### **DC1000E | RESIN INFORMATION**

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

This operations manual is for the Picote Brush Coating™ System using the Mini 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 6 white or 6 grey cartridges each with 900ml of epoxy inside.

**Re-coat:** 3-4 hours at +21°C (70°F).

Can be recoated within 12 hours with no prep, grinding panels must be used after 12 hrs.

**Restore flow:** 4 hours. **Final Cure:** 24 hours.

**Installation:** +10 to +60°C (50-140°F)

Storage Temperature: +16 to +29°C (60-85°F)

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

Shelf Life: 2 years from date of manufacturing when kept in accordance with storage instructions included in

SDS and Technical Data Sheet.

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:** QR Code on Resin Containers or in the DC1000E Resin Technical Guide located on the Picote Institute (www.picoteinstitute.com)

OPERATOR CHECKLISTS FOR 100% SOLIDS EPOXY & FAST CURE RESINS

AVAILABLE TO DOWNLOAD FROM PICOTE INSTITUTE

### MINI COATING PUMP | MAINTENANCE

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

#### **CARING FOR THE FLEXIBLE SHAFT (Millers)**

See relevant Miller Operation & Safety 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 re-apply oil when required.

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

Keep parts clean. Where possible, remove resin from the Coating Pump, Brushes, Miller and other parts carefully with acetone or hand sanitizer.

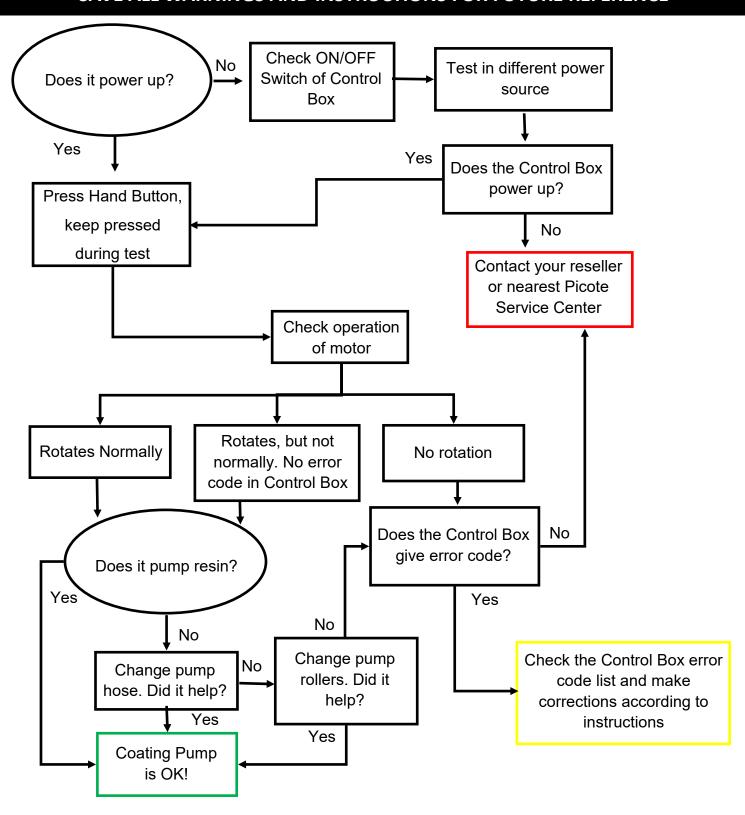
MAINTENANCE PROGRAM		Months			
Maintenance task	3	6	12	24	
Tightness of motor fixing			I	1	
Tightness pump assembly fixing			I	1	
Condition of pump assembly	1	I	I	1	
Condition of rollers	1	I	I	R	
Condition of frame & quick locks			I	1	
Condition of electric components	1	I	I	1	
Clean resin stains	Р	Р	Р	Р	
Operation of Smart Mixer	1	1	I	I	
Condition of hose clamps	1	R	R	R	
Condition of hose connectors	1	I	R	R	
I: Inspect, fix or replace if needed. P: Perform, replace if needed. R: Replace					

#### **SERVICE PERIODS**

Service Period	3 months	6 months	12 months
А			
В			
С			
А	Pump & spar	e parts, except	İ
В	Electric motors		
С	Service Centre repair work		

### TROUBLESHOOTING FLOWCHART | MINI COATING PUMP

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



If there is problem that you cannot resolve with this manual, please consult your Picote Reseller, Service Center, or Picote Solutions at <a href="mailto:claims@picotesolutions.com">claims@picotesolutions.com</a>

### TROUBLESHOOTING FAULT CODES

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

#### TROUBLE SHOOTING

The control box of the Mini 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 <sub>L</sub> 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 (122°F). 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 (14°F). Temperature must be raised over -10°C (14°F) 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.

### WARRANTY POLICY AND PROCEDURE

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

#### **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



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

For Picote Brush Coating™ Certified Installer Training you will receive a Picote ID Card for completion (UK only), which can be used for the tendering process and on site.

Certificates are awarded for all certification trainings.

Visit our website at www.picotegroup.com or contact us at <a href="mailto:training@picotesolutions.com">training@picotesolutions.com</a> to find out about course offerings, pricing, and scheduling.



### 10 YEAR WARRANTY\*

When using the Picote Brush Coating™ 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 Brush Coating Installer Training, you will be able to offer a 10 year manufacturer backed product 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. 4 Author: Ville Hukkanen Accepted:

Date: March 6, 2024



# Please Contact: Your Reseller / Salesperson or Picote www.picotegroup.com



#### **International Offices**

Finland. United Kingdom. USA.

#### **E-Learning**

Free Connection Collar 2.0 - Equipment 101 E-learning course is available at: www.picoteinstitute.com

#### **Technical Support**

support@picotesolutions.com

#### **Claims**

claims@picotesolutions.com

#### **Production & R&D**

Pienteollisuustie 24 06450 Porvoo, Finland support@picotesolutions.com

## Authorised Resellers: www.picotegroup.com/resellers