PICOTE
LIFE FOR PIPES

XPRESS COATING SYSTEM
Picote Brush Coating™ System

OPERATION, SAFETY & INSTALLATION MANUAL

PICOTE
ORIGINAL INSTRUCTIONS
SOLUTIONS

⚠ WARNING

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.

TABLE OF CONTENTS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

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

Safety Symbols

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

Danger risk of serious injury, follow instructions.

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

Danger risk of serious injury from moving 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 injuries and chemicals 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

WARNING

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

1. Resin SDS Sheets, please scan the QR code from the resin bucket(s) or download from the Picote Institute (picoteinstitute.com)
2. **Always wear eye and ear protection as well as chemical, heat and cut-resistant gloves.**
   Other personal protective equipment, such as dust mask and protective clothing should be worn when necessary.
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 machine carefully for any potential damage. **Change or replace damaged parts immediately.**
5. Ensure the pipe has been opened and ventilated to prevent any gases accumulating.
6. Dust produced when working can be dangerous to your health, inflammable or explosive. 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.
7. If the working environment is extremely hot and humid, or badly polluted by conductive dust, use a GFCI-enabled power outlet to increase operator safety.
8. Ensure that the ventilation openings are kept clear when working in dusty conditions to avoid damaging internal parts. If it should become necessary to clear dust, first unplug the machine.
9. When in use, it is very important that the machine is stable and on an even surface at all times.
10. **Never leave the machine running unattended**.
11. Always hold the Miller shaft when operating the machine.
12. **Never touch moving or rotating parts**.
13. **Do not use on any pipes containing asbestos fibres.**

Xpress 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.

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

ENVIRONMENT, TRANSPORT, STORAGE & DISPOSAL

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

⚠WARNING **This section contains important safety information.**
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ENVIRONMENTAL:

- **Operational Ambient Temperature Range:** 10°C to 50°C (50°F to 122°F), frost and condensation free
- **Storage Ambient Temperature Range:** 0°C to 50°C (32°F to 122°F), frost and condensation free
- **Maximum Altitude:** 2000m or 6500 ft. Derate above 1000m or 3280 ft: 1% / 100m or 328 feet
- **Maximum Humidity:** 95% non-condensing
- **NOTE: When using the Xpress Coating System outside, it should be protected from the elements (rain and snow) with a suitable tent or shelter.**

TRANSPORT:

Xpress Coating Pump should be transported in a vehicle or trailer secured with ratchet straps to prevent any sudden movements or accidents caused by hard braking or accident. If transported in a laid down/horizontal position, make sure the resin reservoir lids and lid plugs are securely in place to avoid spillage.

The Xpress Hose Reel should be transported in a vehicle or trailer in a laid down position secured with ratchet straps to prevent any sudden movements or accidents caused by hard braking or accident.

STORAGE:

It is recommended that the Xpress Coating System be stored indoors to protect them from rain and sunlight, and also in a constant ambient temperature.

If the Xpress Coating System has been stored in an environment colder than +10°C or 50°F, it should be stood at room temperature for 24 hours before use.

If the Xpress Coating System has been stored for a long period of time (over 1 months), it should be checked and tested according to the maintenance programme before use.

Charge the Xpress Pump battery to around 80% capacity before storing for long periods.

NEVER leave the unit unattended while it is charging.

DISPOSAL:

Xpress Coating Pump actuators, Hose Reel motor, control box, electric wires and power supply can be disposed in Europe at Waste Electrical and Electronic Equipment (WEEE) collection points.

The Xpress Coating Pump and Hose Reel frame can be recycled in metal waste collection points. Delivery and Supply Hoses, resin reservoirs and cylinders are contaminated with the resin components and should be disposed of as per local, regional, and national regulations.

Dispose of unused Resin by mixing the product in a well ventilated location using a non-flammable container. Mixed product will generate heat while hardening. Follow the SDS sheets which can be found on the Picote Institute (picoteinstitute.com) or via the QR code on the resin containers.

Recycle Li-ion batteries according to regulations. **Do not dispose of in fire! Do not puncture!**

For ALL Disposals: Always follow local, regional, and national waste handling rules and regulations.

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:

Xpress 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:

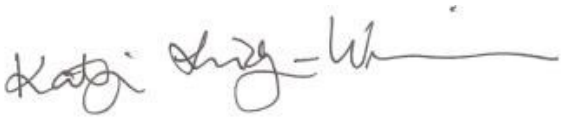
EN ISO 13849-1

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

Picote Solutions Oy Ltd, Pienteollisuustie 24

06450 Porvoo, Finland

12th October 2023



Katja Lindy-Wilkinson

C.E.O.

Picote Solutions Oy Ltd

Pienteollisuustie 24, 06450 Porvoo, Finland

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:

Xpress Hose Reel

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 ISO 13849-1

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

Picote Solutions Oy Ltd, Pienteollisuustie 24
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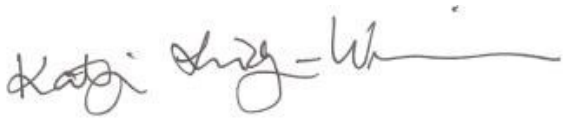
12th October 2023



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

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:

Xpress Hose Reel Heating Blanket

is of series production and

Conforms to the following EU Directive:

2006/42/EY

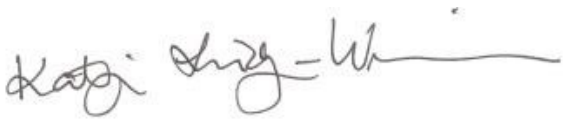
And is manufactured in accordance with the following standards or standardised documents:

EN ISO 60335-2-17

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

Picote Solutions Oy Ltd, Pienteollisuustie 24
06450 Porvoo, Finland

12th October 2023



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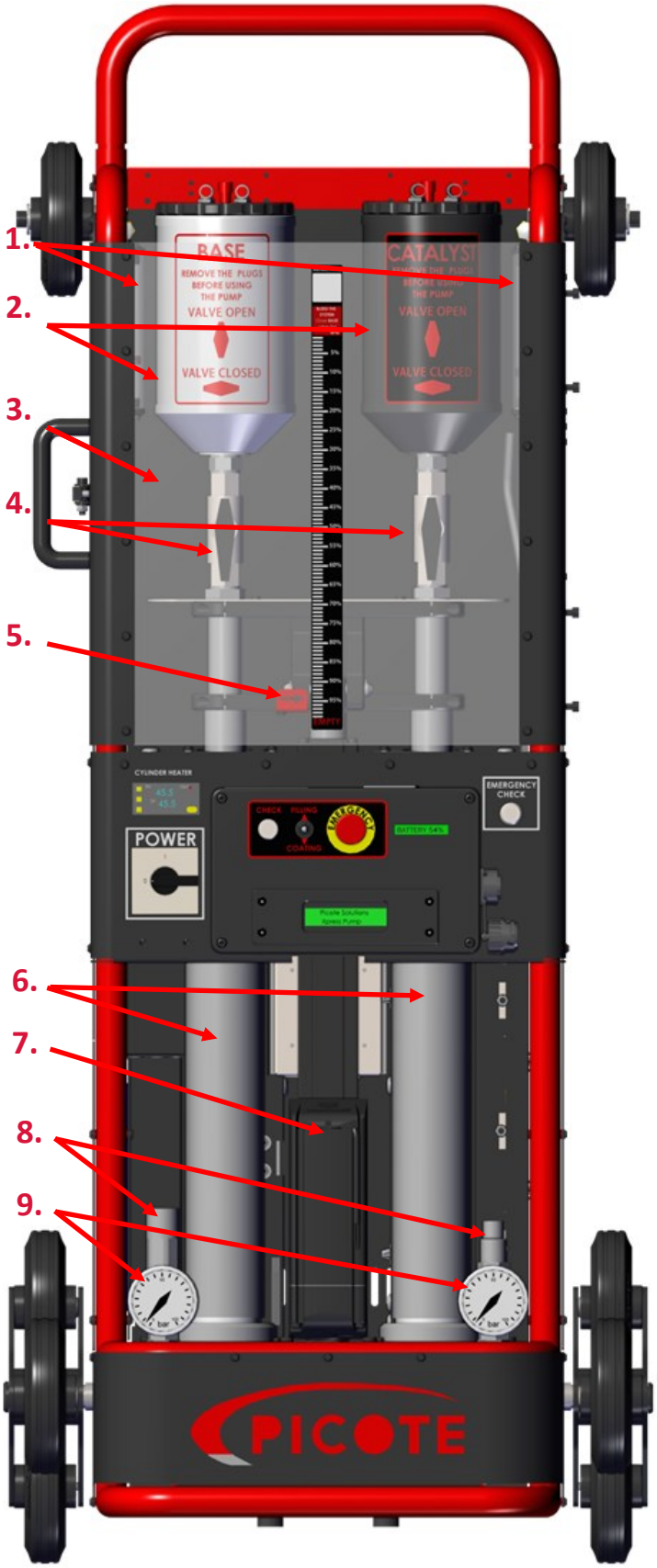
General Description:

1. Lubricant Reservoir
2. Resin Reservoirs (BASE & CATALYST)
3. Safety Screen
4. Reservoir Valve
5. Pumping Volume Indicator
6. Cylinder
7. Actuator
8. Resin Supply Hose Connector
9. Pressure Gauge



PUMP

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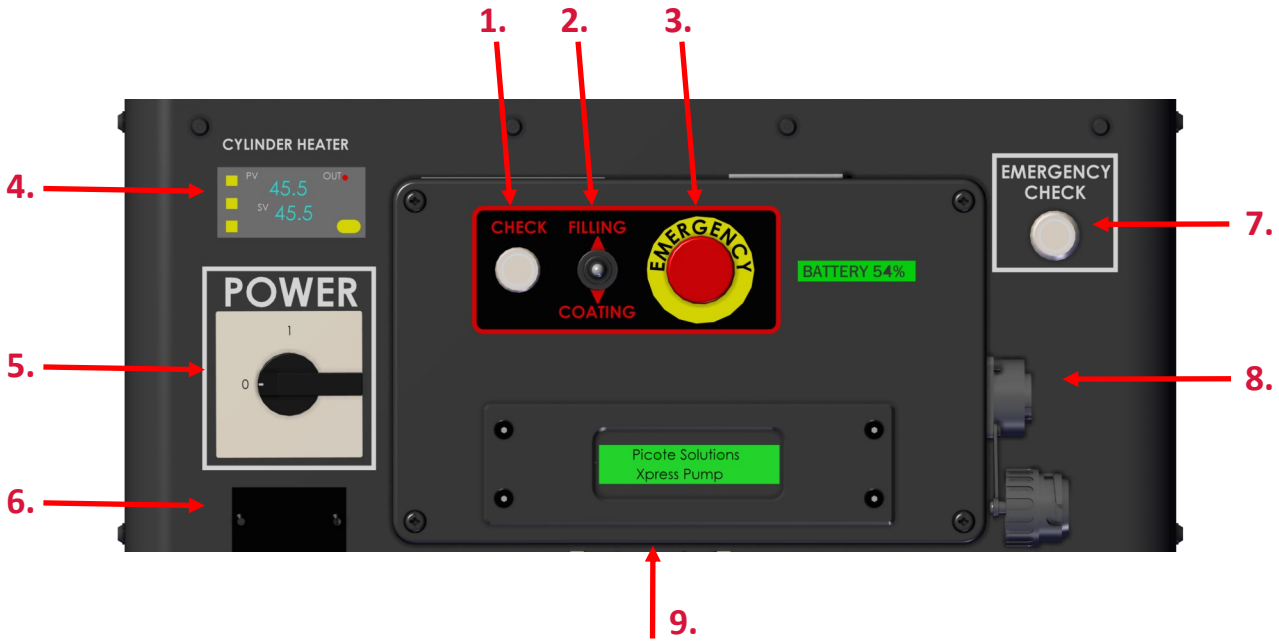


General Description:

1. Operation Check Button
2. Filling/Coating Switch
3. Emergency Stop
4. Cylinder Thermostat
5. On/Off Switch
6. Power Socket
7. Emergency Check Button
8. Hose Reel Connector
9. Pump Display

Intended Use:

Picote Brush Coating™ pipes from DN32-300 (1¼-12'') in diameter

Voltage:

All variants of the Xpress Coating System operate within 90-240VAC 50/60Hz.

Battery:

The Xpress Coating Pump has an internal 48V, 882Wh Li-Ion battery.

Emergency Stop:

On the Xpress Coating System there are a total of three Emergency Stops:

1. One on the Pump
2. One on the Hose Reel
3. One on the Remote Control

Engaging the Emergency Stop anywhere in the system will result in the system shutting down and the pump actuators will stop and the Hose Reel retraction is prevented.

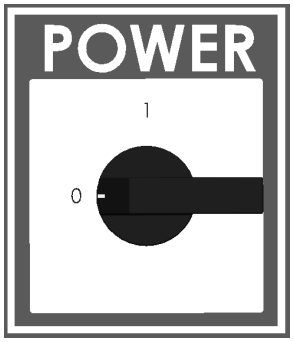
NOTE: The Xpress Pump Cylinder Heaters & Hose Reel Heating Blanket/ Heating Blanket Power Connection Outlet will still have power.

Emergency Check Button:

If the Emergency Stop is engaged, the Safety Screen opened or the machine has just been powered up, this button needs to be pressed before the Xpress Pump can be operated.

NOTE: If the Safety Screen has been opened, the Hose Reel can still be operated.

Main Power Switch & Battery Charging



The Main Power Switch is used to turn the system ON/OFF.

NOTE: To speed up the charging turn the machine OFF.

Resin Reservoir Valves:

Both Resin Reservoirs have hand operated Valves which need to be closed or opened depending on the pumping status. The valves are open when they are in the vertical and closed in the horizontal position.

When filling the cylinders: OPEN
When pumping: CLOSED

NOTE: When pumping, the CATALYST pressure will rise before the BASE pressure.

When starting to pump, keep the CATALYST valve open and then close it as soon as the pressure starts to rise on the BASE side gauge.

If it takes over 25mm (1") of travel to even the pressure, there might be air in the system and it should be bled before proceeding!

(refer to Pages 21-22 for information on the process for bleeding the system).

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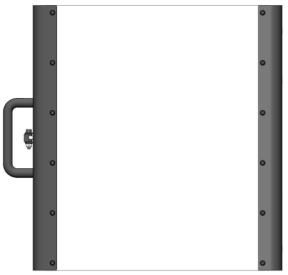
Safety Screen:

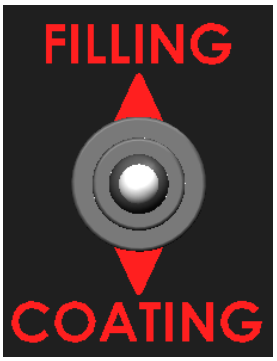
The Safety Screen is equipped with a safety hinge, which stops the pump when the screen is not in closed position. Opening the screen will cause Emergency Check to activate.



Direction Switch:

The Direction Switch is used to change the direction of the actuators.

- Upwards (FILLING): Used to draw more resin in to cylinder from the reservoirs.
- Downwards (COATING): Used to pump the resin.



Cylinder and Hose Reel Heating:

The Xpress Coating Pump cylinders and Hose Reel Blanket are heated.

- Heating thermostat has been pre-set:
  - Pump: 40°C (104°F)
  - Reel: 40°C (104°F)
- There is an indicator light *OUT* which is lit when the heating is active.
- Actual temperature is displayed in **red.**
- The set temperature is displayed in **blue.**
- To adjust temperature, shortly press **SET** and then select desired temperature with **UP** and **DOWN** buttons.

NOTE! The resin warms up slower than the cylinders or the hose reel. It is recommended to warm up the system for at least 30 minutes (depending on the ambient temperature).

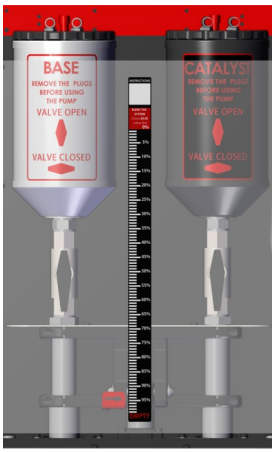
Check Button:

Check button is used to check messages shown on the pump display. Actions that require Check Button to be pressed are presented with an audible beep.

Press the button firmly.

NOTE! This button is NOT the same as the Emergency Check Button!

Pumping Volume Indicator:



The Safety Screen has a Volume Indicator which shows how much of the total resin volume has been pumped from the cylinders.

Behind the Safety Screen there is a **RED** marker that moves in conjunction with the pistons. The value starts at 0% (top), which means 0% of the volume has been used (cylinders are full).

Resin Calculator:

The Picote Xpress Resin Calculator is an Excel spreadsheet that can be downloaded from the Picote Institute online learning platform at picoteinstitute.com. It calculates project resin usage based on pipe diameter, number of coats, and repair length.

Xpress Pump Coating Scale:

You can use the Pumping Volume Indicator information along with Coating Scale Charts (also part of the downloadable Xpress Resin Calculator) to show maximum distance, by pipe diameter that the remaining resin in the cylinders will cover.

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Xpress Coating Scale (USA)

Scale is the maximum distance one full stroke of the Xpress Pump will cover.

Scale	Pipe Diameter (Inches)										
%	1 1/4"	1 1/2"	2"	3"	4"	5"	6"	8"	9"	10"	12"
0%	88.6 ft	65.6 ft	52.5 ft	32.8 ft	26.2 ft	23.0 ft	19.7 ft	13.1 ft	11.5 ft	9.8 ft	8.5 ft
5%	84.2 ft	62.3 ft	49.9 ft	31.2 ft	24.9 ft	21.8 ft	18.7 ft	12.5 ft	10.9 ft	9.4 ft	8.1 ft
10%	79.7 ft	59.1 ft	47.2 ft	29.5 ft	23.6 ft	20.7 ft	17.7 ft	11.8 ft	10.3 ft	8.9 ft	7.7 ft
15%	75.3 ft	55.8 ft	44.6 ft	27.9 ft	22.3 ft	19.5 ft	16.7 ft	11.2 ft	9.8 ft	8.4 ft	7.3 ft
20%	70.9 ft	52.5 ft	42.0 ft	26.2 ft	21.0 ft	18.4 ft	15.7 ft	10.5 ft	9.2 ft	7.9 ft	6.8 ft
25%	66.4 ft	49.2 ft	39.4 ft	24.6 ft	19.7 ft	17.2 ft	14.8 ft	9.8 ft	8.6 ft	7.4 ft	6.4 ft
30%	62.0 ft	45.9 ft	36.7 ft	23.0 ft	18.4 ft	16.1 ft	13.8 ft	9.2 ft	8.0 ft	6.9 ft	6.0 ft
35%	57.6 ft	42.7 ft	34.1 ft	21.3 ft	17.1 ft	14.9 ft	12.8 ft	8.5 ft	7.5 ft	6.4 ft	5.5 ft
40%	53.1 ft	39.4 ft	31.5 ft	19.7 ft	15.7 ft	13.8 ft	11.8 ft	7.9 ft	6.9 ft	5.9 ft	5.1 ft
45%	48.7 ft	36.1 ft	28.9 ft	18.0 ft	14.4 ft	12.6 ft	10.8 ft	7.2 ft	6.3 ft	5.4 ft	4.7 ft
50%	44.3 ft	32.8 ft	26.2 ft	16.4 ft	13.1 ft	11.5 ft	9.8 ft	6.6 ft	5.7 ft	4.9 ft	4.3 ft
55%	39.9 ft	29.5 ft	23.6 ft	14.8 ft	11.8 ft	10.3 ft	8.9 ft	5.9 ft	5.2 ft	4.4 ft	3.8 ft
60%	35.4 ft	26.2 ft	21.0 ft	13.1 ft	10.5 ft	9.2 ft	7.9 ft	5.2 ft	4.6 ft	3.9 ft	3.4 ft
65%	31.0 ft	23.0 ft	18.4 ft	11.5 ft	9.2 ft	8.0 ft	6.9 ft	4.6 ft	4.0 ft	3.4 ft	3.0 ft
70%	26.6 ft	19.7 ft	15.7 ft	9.8 ft	7.9 ft	6.9 ft	5.9 ft	3.9 ft	3.4 ft	3.0 ft	2.6 ft
75%	22.1 ft	16.4 ft	13.1 ft	8.2 ft	6.6 ft	5.7 ft	4.9 ft	3.3 ft	2.9 ft	2.5 ft	2.1 ft
80%	17.7 ft	13.1 ft	10.5 ft	6.6 ft	5.2 ft	4.6 ft	3.9 ft	2.6 ft	2.3 ft	2.0 ft	1.7 ft
85%	13.3 ft	9.8 ft	7.9 ft	4.9 ft	3.9 ft	3.4 ft	3.0 ft	2.0 ft	1.7 ft	1.5 ft	1.3 ft
90%	8.9 ft	6.6 ft	5.2 ft	3.3 ft	2.6 ft	2.3 ft	2.0 ft	1.3 ft	1.1 ft	1.0 ft	0.9 ft
95%	4.4 ft	3.3 ft	2.6 ft	1.6 ft	1.3 ft	1.1 ft	1.0 ft	0.7 ft	0.6 ft	0.5 ft	0.4 ft
100%	0 ft	0 ft	0 ft	0 ft	0 ft	0 ft	0 ft	0 ft	0 ft	0 ft	0 ft

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Xpress Coating Scale (Metric)

Scale is the maximum distance one full stroke of the Xpress Pump will cover.

Scale	Pipe Diameter (MM)										
%	32	40	50	70	100	125	150	200	225	250	300
0%	27.0 m	20.0 m	16.0 m	10.0 m	8.0 m	7.0 m	6.0 m	4.0 m	3.5 m	3.0 m	2.6 m
5%	25.7 m	19.0 m	15.2 m	9.5 m	7.6 m	6.7 m	5.7 m	3.8 m	3.3 m	2.9 m	2.5 m
10%	24.3 m	18.0 m	14.4 m	9.0 m	7.2 m	6.3 m	5.4 m	3.6 m	3.2 m	2.7 m	2.3 m
15%	23.0 m	17.0 m	13.6 m	8.5 m	6.8 m	6.0 m	5.1 m	3.4 m	3.0 m	2.6 m	2.2 m
20%	21.6 m	16.0 m	12.8 m	8.0 m	6.4 m	5.6 m	4.8 m	3.2 m	2.8 m	2.4 m	2.1 m
25%	20.3 m	15.0 m	12.0 m	7.5 m	6.0 m	5.3 m	4.5 m	3.0 m	2.6 m	2.3 m	2.0 m
30%	18.9 m	14.0 m	11.2 m	7.0 m	5.6 m	4.9 m	4.2 m	2.8 m	2.5 m	2.1 m	1.8 m
35%	17.6 m	13.0 m	10.4 m	6.5 m	5.2 m	4.6 m	3.9 m	2.6 m	2.3 m	2.0 m	1.7 m
40%	16.2 m	12.0 m	9.6 m	6.0 m	4.8 m	4.2 m	3.6 m	2.4 m	2.1 m	1.8 m	1.6 m
45%	14.9 m	11.0 m	8.8 m	5.5 m	4.4 m	3.9 m	3.3 m	2.2 m	1.9 m	1.7 m	1.4 m
50%	13.5 m	10.0 m	8.0 m	5.0 m	4.0 m	3.5 m	3.0 m	2.0 m	1.8 m	1.5 m	1.3 m
55%	12.2 m	9.0 m	7.2 m	4.5 m	3.6 m	3.2 m	2.7 m	1.8 m	1.6 m	1.4 m	1.2 m
60%	10.8 m	8.0 m	6.4 m	4.0 m	3.2 m	2.8 m	2.4 m	1.6 m	1.4 m	1.2 m	1.0 m
65%	9.4 m	7.0 m	5.6 m	3.5 m	2.8 m	2.5 m	2.1 m	1.4 m	1.2 m	1.1 m	0.9 m
70%	8.1 m	6.0 m	4.8 m	3.0 m	2.4 m	2.1 m	1.8 m	1.2 m	1.1 m	0.9 m	0.8 m
75%	6.7 m	5.0 m	4.0 m	2.5 m	2.0 m	1.8 m	1.5 m	1.0 m	0.9 m	0.8 m	0.7 m
80%	5.4 m	4.0 m	3.2 m	2.0 m	1.6 m	1.4 m	1.2 m	0.8 m	0.7 m	0.6 m	0.5 m
85%	4.0 m	3.0 m	2.4 m	1.5 m	1.2 m	1.1 m	0.9 m	0.6 m	0.5 m	0.5 m	0.4 m
90%	2.7 m	2.0 m	1.6 m	1.0 m	0.8 m	0.7 m	0.6 m	0.4 m	0.4 m	0.3 m	0.3 m
95%	1.3 m	1.0 m	0.8 m	0.5 m	0.4 m	0.4 m	0.3 m	0.2 m	0.2 m	0.2 m	0.1 m
100%	0 m	0 m	0 m	0 m	0 m	0 m	0 m	0 m	0 m	0 m	0 m

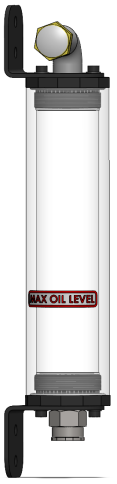
Pump Display:

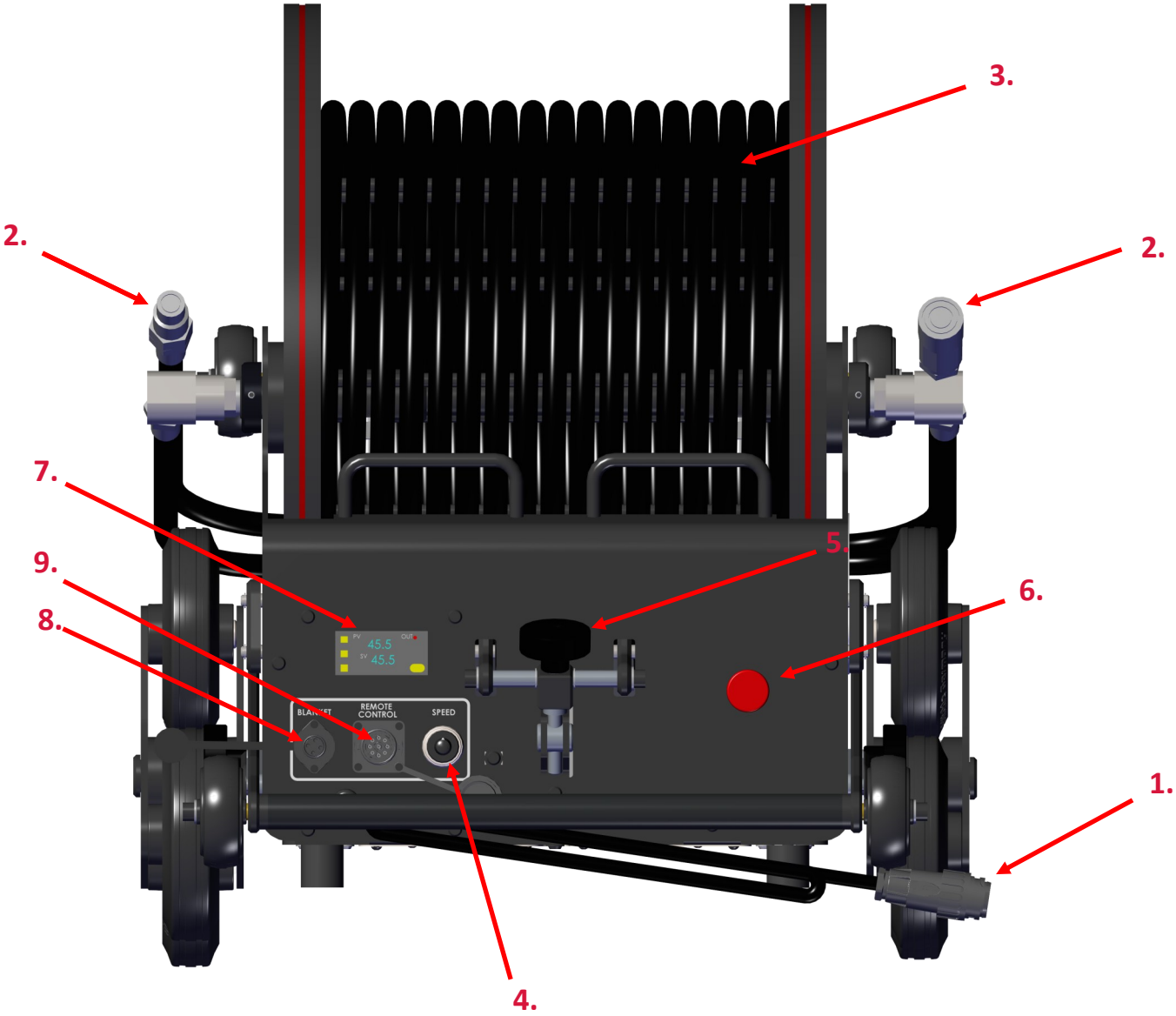
The display on the XPRESS Pump will show current program status, gives advice and show's error messages. For example "*Release the Start Button*" or "*Direction Changed*".

Lubricant Reservoir:

The pump pistons are lubricated and both have their own lubricant reservoirs. The lubricant oil level should be below ***MAX OIL LEVEL*** label when the machine has been driven to upper position. The oil level will momentarily drop when pumping.

We recommend using Picote Shaft Oil for the Xpress System lubricant.





General Description:

1. Power Cord
2. Resin Supply Hoses
3. Delivery Hoses
4. Hose Reel Speed Control
5. Hose Reel Brake Control
6. Emergency Stop
7. Heating Blanket Thermostat
8. Heating Blanket Connector
9. Remote Control Connector

Emergency Stop:

Engaging the Emergency Stop on the Hose Reel will result in the system shutting down. The pump actuators will stop and the retraction of the Hose is prevented.

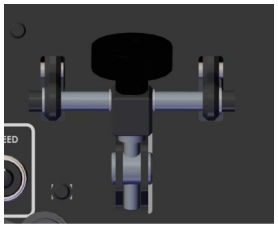
NOTE! The Xpress Pump Cylinder Heaters & Hose Reel Heating Blanket/ Heating Blanket Power Connection Outlet will still have power.

Hose Retraction Clutch:

On the Hose Reel there is a knob which can be used to adjust the level of clutch engagement. Turn the knob clockwise to tighten the clutch and counter clockwise to loosen it.

The clutch needs to be released in order to pull the delivery hoses from the Reel.

When the correct length of delivery hose has been pulled off, re-tighten the clutch in order to use the automated hose return while coating. Alternatively you can manually wind the hose reel to take up the delivery hose if desired.



Hose Retraction Speed Knob:

The hose retraction speed can be adjusted with the knob on the Hose Reel.

Hose Reel Pull Handle:

The Pull Handle on the Hose Reel can be extended and retracted by loosening the knobs on the sides.

There are several positions where the pull handle can be locked in place.

When in use retract the pull handle all the way so that the Hose Reel rests on the rubber feet to help prevent the Hose Reel from accidentally moving around.

The Heating Blanket:

The Standard Reel option includes a Heating Blanket which is used to heat up the Hose Reel delivery hoses and the resin inside.

To put on the Heating Blanket, attach it to the Hose Reel with the Velcro strips.

Rotate the Hose Reel so it pulls the Blanket around it.

Push the temperature sensor through the hoses to the inside of the Reel to allow for a more accurate temperature reading.

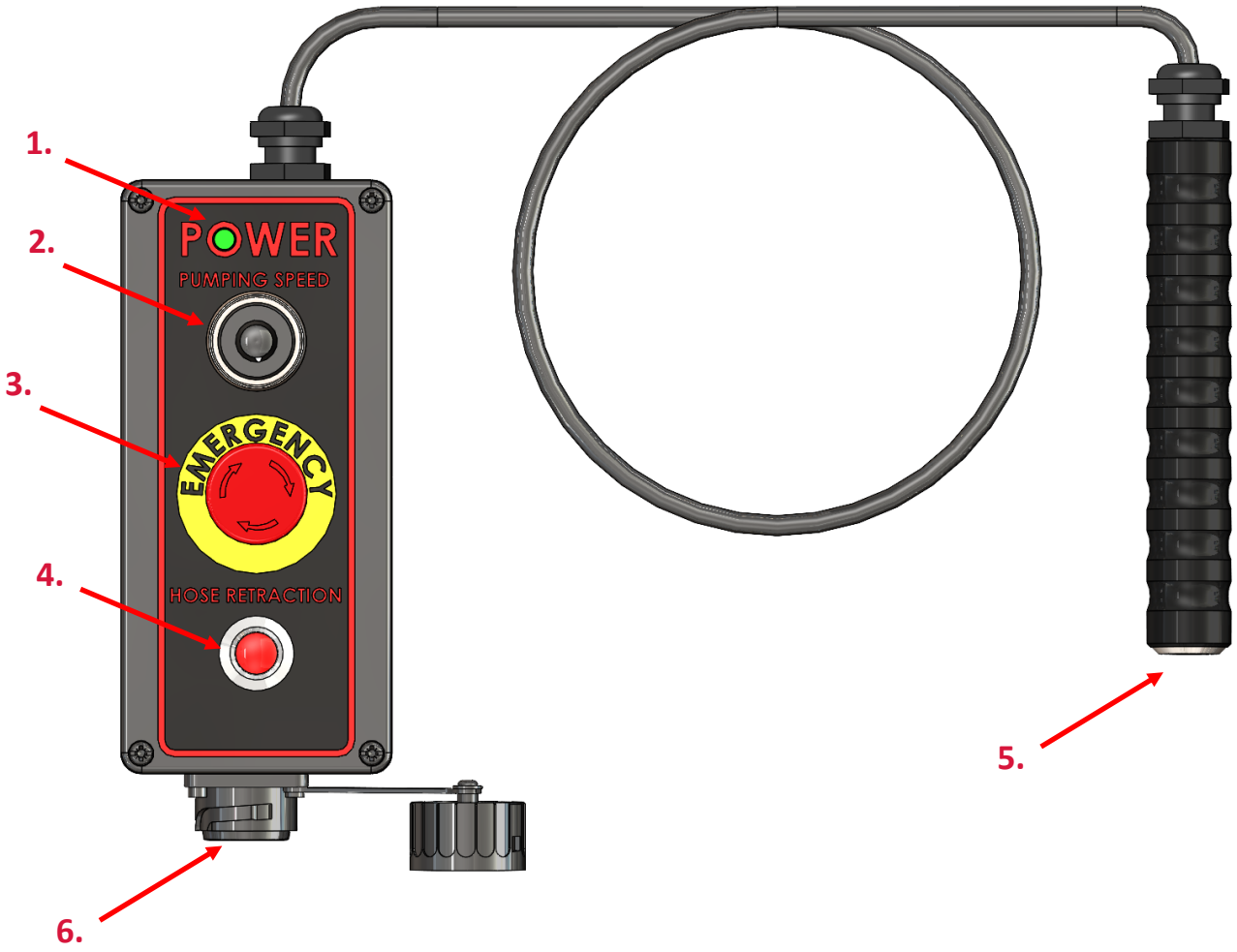
Close and secure the Heating Blanket with the Velcro fasteners.

Plug Heating Blanket into the Hose Reel connector marked *"Blanket".*

Once the system is powered up, the Heating Blanket will also turn ON.

REMOTE CONTROL

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



General Description:

1. Power Light
2. Pumping Speed Knob
3. Emergency Stop
4. Hose Retraction Button
5. Stop / Start Button for Pump
6. Remote Control Cable Connector

The Emergency Stop:

Engaging the Emergency Stop on the Remote Control will result in the system shutting down. The pump actuators will stop and the retraction of the Hose is prevented.

NOTE: The Xpress Pump Cylinder Heaters & Hose Reel Heating Blanket/ Heating Blanket Power Connection Outlet will still have power.

Pumping Speed:

The pumping speed can be adjust by turning the knob on the remote control from 0 to 10 with 0-2 being the slowest setting. Slowest speed is recommended when coating. Faster speeds can be used for FILLING mode.

Start Button:

The Start Button is a locking button. When pressed, the actuators will move pistons up or down depending on the Direction Switch setting.

The Hose Retraction:

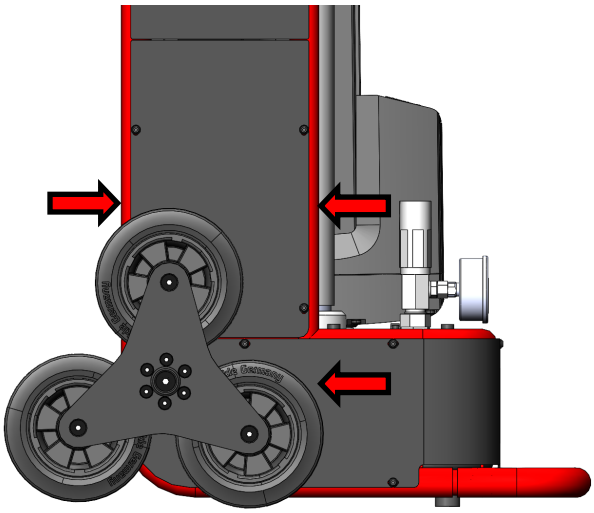
On the Remote Control there is a button that can be used to retract the delivery hoses back to the Hose Reel. This way the operator can rewind the excess hose back to the Reel without stopping the coating process.

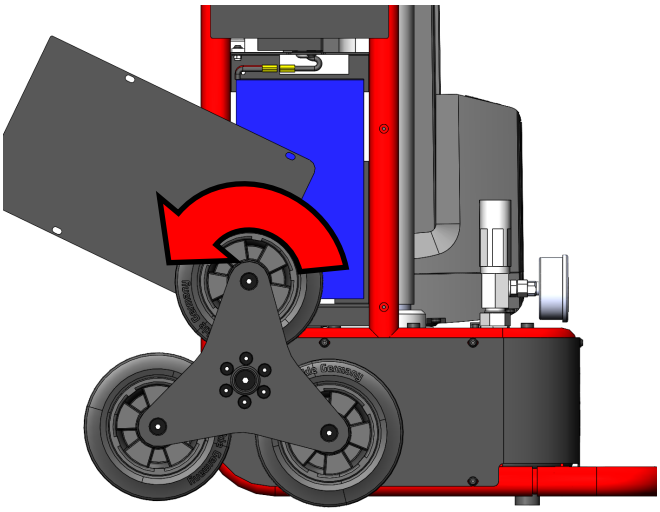
NOTE: Retraction speed and clutch strength can be adjusted at the Hose Reel.

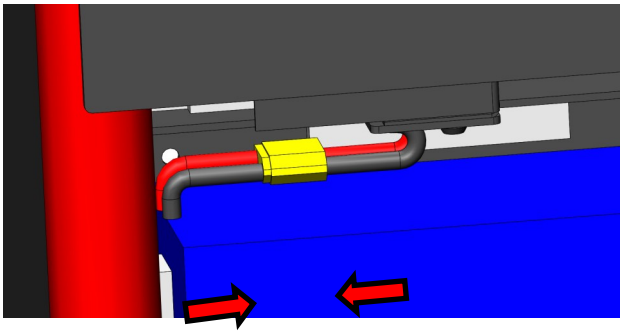
⚠WARNING **This section contains important safety information.**
Failure to comply could result in serious injury or death.

Connecting & Charging the Battery:

The Xpress Coating System is delivered battery detached. The battery must be connected before use. It can be found behind the battery access panel. To connect it, first make sure the machine is turned OFF. Take out three screws and move the panel aside. Connect the battery and tuck the wires on top of the battery.







- Before using the Xpress Coating System, charge the battery to 100%.
- To charge the battery, attach the power cord to the Xpress Coating Pump.
- **Make sure the Power Switch is set to the OFF position.**
- Charging will start automatically.
- To check the battery level, turn the main power switch to the ON position.
- **NOTE:** When in use, Cylinder Heater will cause battery level indicator to appear lower than actual. To check the true level, temporarily turn OFF Cylinder Heater thermostat & disconnect Reel Heating Blanket (if connected).

INITIAL SETUP

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Preparing Hose Reel:

Before using the Hose Reel the delivery hoses need to be positioned correctly by pushing them through the hose guides.

Initial Filling and Bleeding of System:

NOTE: The Xpress Coating System has been pressure tested with Picote lubricant. Residual oil and air inside the system needs to be removed by bleeding the system.

BEFORE YOU START! Ensure Resin Buckets (BASE & CATALYST) are at room temperature.

BLEEDING PUMP:
Start with Xpress Pump disconnected from all Hoses/Reel.

1. Start with Pistons fully lowered (Pump should be delivered in this configuration).
2. Connect power cord and Remote Control to Pump.
3. Turn ON Pump *(pump will begin to heat up).*
4. Confirm Pump Thermostat is set to +40°C (104°F). **Note:** Temperature comes pre-set from factory.
5. Open Reservoir Lids.
6. Wipe out any excess testing lubricant from inside of the Resin Reservoirs.
7. Fill up BASE and CATALYST Reservoirs with correct resin components but leave lids off.
   Be sure to pour the correct component into the correct resin reservoir. BASE = White, CATALYST = Black
8. Allow Pump to heat for 60 minutes, or until Pump temperature reaches +40°C (104°F).
9. Open Reservoir Valves and **keep them open during the entire bleeding process.**
10. Select FILLING Mode and raise pistons to their uppermost position.
11. Wait one minute to allow Resin to flow into the cylinders.
12. Select COATING Mode and fully lower pistons. (This will return resin and trapped air to the Reservoirs).
13. Select FILLING Mode and raise pistons to their uppermost position.
14. Wait one minute to allow Resin to flow into the cylinders.
15. REPEAT STEPS 15-17, two times.
16. Close Reservoir Lids.
17. Pump is now Bled and you are ready to initialize the Reel.

BLEEDING REEL:

1. Remove plugs from reservoir lid quick connectors. They can be stored in the storage holes on the lids.
2. Ensure Pump Pistons are fully raised to their uppermost position before connecting hydraulic hoses.
   - If not already raised, Open Valves, Select Filling Mode and raise Pistons.
3. Next, connect Reel to Pump (hydraulic hose connections only).

4. Release Reel brake and unwind enough of the delivery hoses so that they can be placed into an empty waste bucket. **(Discard all excess lubricant and initial pumped resin according to local, regional, & national regulations).**
5. Allow Pump to heat up to at least 86°F (30°C).
6. Close BOTH Valves (BASE & CATALYST).
7. Change Directional Switch to COATING mode.
8. Press Remote start button to begin pumping. Material will begin to flow from the delivery hoses.
   - Pressure gauges may not register at this point because material will flow easily.
   - Pressures will rise later and may be different from each other, but that is normal at this stage.
   - Pump has a maximum pressure difference limit built in, so you DO NOT need to touch the Valves.
9. Fully lower Pistons, dispensing testing lubricant into the waste bucket.
10. Open Valves and change Directional Switch to FILLING mode.
11. Raise Pistons to their highest position.
12. REPEAT STEPS 6-11 ≈ 3-4 times, or until any remaining testing lubricant has been expelled & coating resins starts flowing uniformly from delivery hoses.
    - NOTE: One component might start flowing before the other, this is normal.
13. When both materials start to flow the hose reel is BLED and ready for use.
14. Stop Pump. Wait a moment for resin to stop flowing and cap Delivery Hoses.
15. **Xpress System is now ready for use.**

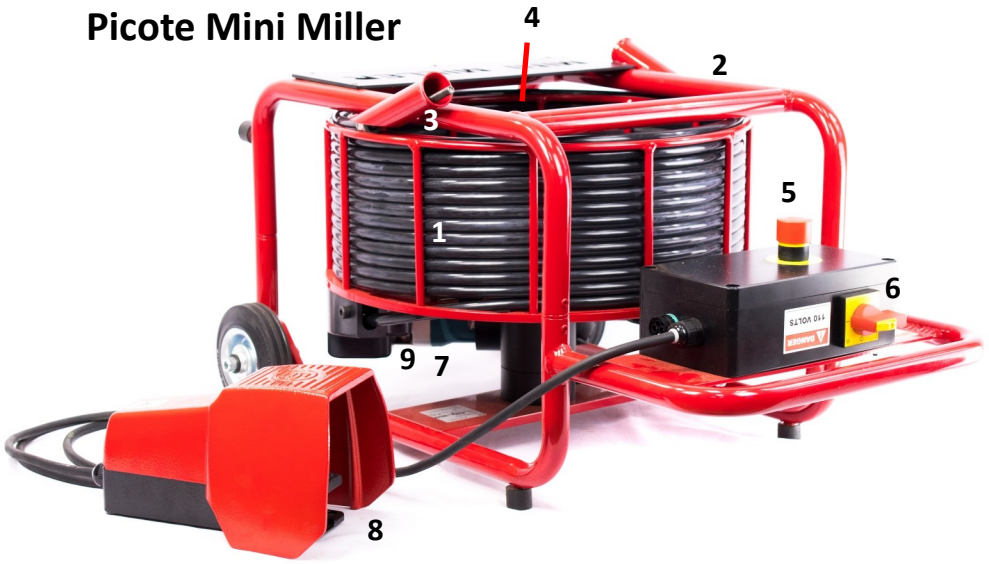
PICOTE MILLERS | 8MM (1/3”) SHAFT

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

Note: The Xpress Coating System can 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. If using one of those Millers please read and follow that Millers’ Safety and Operation Manual.

Picote Mini Miller



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 (1¼–4”)
- 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

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

Note: The Xpress Coating System can 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. If using one of those Millers please read and follow that 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.

FOOT PEDAL:
The machine has an Operator Presence Control or ‘OPC’. When the control is not held 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.

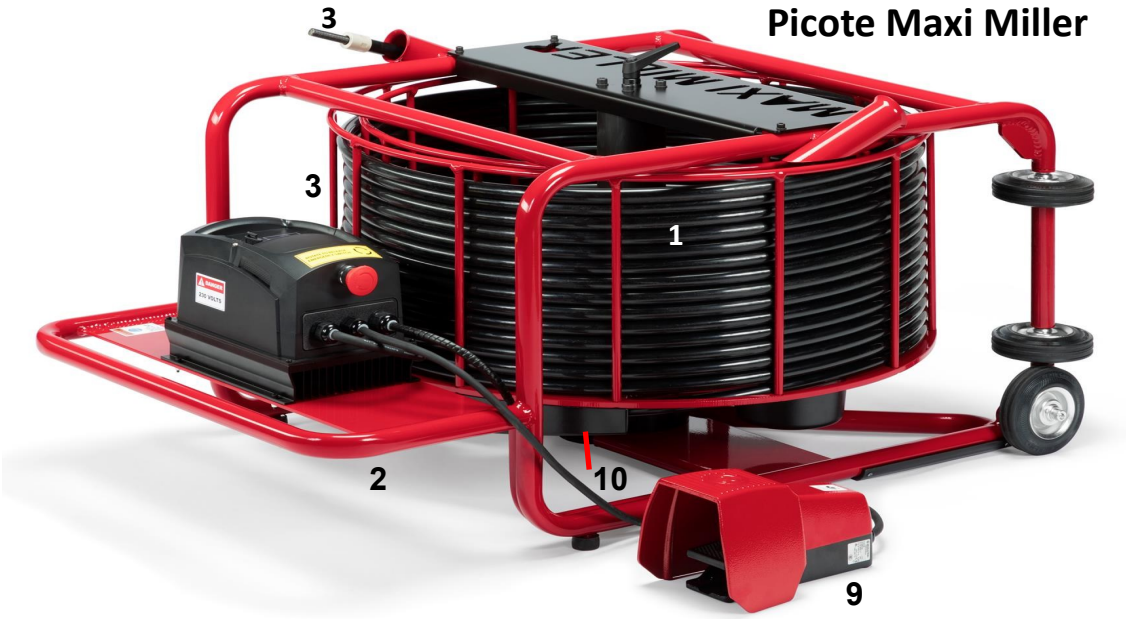
EMERGENCY STOP
There is an Emergency Stop Button on the machine. Power supply to the motor is cut off when Emergency Stop Button is pushed. Always make sure Emergency Stop Button is pressed & completely unplug machine when accessories (e.g. Grinding Chains) are not inside the pipe.

PICOTE MILLERS | 10 & 12 MM (3/8 & 1/2”) SHAFT

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

Note: The Xpress Coating System can be used with the Midi Cleaner, Super Midi, Maxi Miller, or the Maxi Power+. If using one of those Millers please read and follow that 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. Forward/Reverse
8. Speed Control
9. Foot Pedal—Operator Presence Control
10. Hand Guard & Strain Relief / Inside Hand Guard (hidden in picture - not shown)

Intended Use:

This machine is intended for the following uses:

- Midi Cleaner: Coating Pipes from DN50-200 (2-8”)
- Super Midi: Coating Pipes from DN70-200 (3-8”)
- Maxi Miller: Coating pipes from DN70-300 (3-12’’)
- Cleaning and unblocking pipes, drains and sewers.
- 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 | 10 & 12 MM (3/8 & 1/2”) SHAFT

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

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”	1/2”	100ft		230V:1.5kW		196lb	

SUPER MIDI 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”	1/2”	65ft		230V:1.5kW		152lb	

MIDI CLEANER 10/23							
SIZE	SHAFT	RANGE	ROTATING SPEED	OUTPUT (kW)	POWER SOURCE	WEIGHT	IP CLASS
1122x712x466	10mm	23m	500-1500rpm	110V:1.5kW	110v or 230v	65kg	54
44x28x18”	3/8”	75ft		230V:1.5kW		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 Control or ‘OPC’. When the control is not held down, the machine stops.

EMERGENCY STOP
There is an Emergency Stop Button on the machine. Power supply to the motor is cut off when Emergency Stop Button is pushed. Always make sure Emergency Stop Button is pressed & completely unplug machine when accessories (e.g. Grinding Chains) are not inside the pipe.

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.

⚠WARNING **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 eco-friendly 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.

STEP 3 ▶ The pipe MUST not have any standing liquid or active INI before continuing with the coating setup. You can use various methods to remove liquid from the pipe include rags, pipe pigs, or the Picote Heater to expedite the process.

The pipe can be 'damp' but cannot have any liquids that would mix with the resin when coating.

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

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Intended Use:

Required Tools & Parts

- Picote Coating Brushes (1 or 2)
- Picote Brush Stopper
- Picote Sleeve
- 2.5mm Hex Key
- Adjustable Wrench

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

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.
- **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.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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. Except in DN32 (1¼") pipes where only 1 brush is used at all times.

Recommended Coating Brush Diameters for: 8mm (1/8") Shaft Millers (Mini Cleaner / Mini Miller) & 10mm (3/8") Shaft Millers (Midi Cleaner)				
Host Pipe Diameter	**Front Coating Brush Diameter (Straight)**	**Front Coating Brush Diameter (Multiple Bends)**	**Rear Coating Brush**	**Distance Between Brushes**
DN32 (1¼")	50mm (2")	N/A	N/A	N/A
DN40 (1½")	50mm (2")	50mm (2")	50mm (2")	20mm (1½")
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")

***** If coating pipe diameters ≤ DN50 (2") use the Xpress Small Pipe Coating Kit***

Recommended Coating Brush Diameters for: 12mm (1/2") Shaft Millers (Super Midi / 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")	75mm (3")	25-50mm (1-2")
DN100 (4")	150mm (6")	175mm (7")	150mm (6")	25-50mm (1-2")
DN125 (5")	175mm (7")	200mm (8")	175mm (7")	25-50mm (1-2")
DN150 (6")	200mm (8")	225mm (9")	200mm (8")	25-50mm (1-2")
DN175 (7")	225mm (9")	250mm (10")	225mm (9")	25-50mm (1-2")
DN200 (8")	250mm (10")	275mm (11")	250mm (10")	25-50mm (1-2")
DN225 (9")	275mm (11")	300mm (12")	275mm (11")	25-50mm (1-2")
DN250 (10")	300mm (12")	350mm (14")	300mm (12")	25-50mm (1-2")
DN300 (12")	350mm (14")	350mm (14")	350mm (14")	25-50mm (1-2")

STEP 2 ▶ Always use a Sleeve on Miller shaft whenever possible. Attach smaller brush against the Sleeve, leaving roughly 6mm (¼") between the Brush Hub and Sleeve. Securely tighten the two 2.5mm set screws. **Do not over tighten screws to prevent stripping the Brush Hub.**

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

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.

STEP 3 ▶ Slide larger Coating Brush onto shaft followed by a Brush Stopper. Bring to the end and tighten both securely.

STEP 4 ▶ Refer to Brush Assembly table for proper distance between the front and rear brushes. Do not use shaft casing between the brushes to ensure needed flexibility around bends.

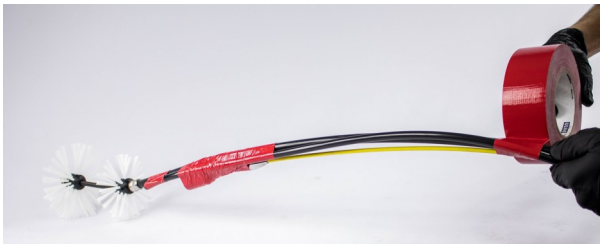
ONCE BRUSHES ARE SET UP, MOVE ON TO DELIVERY HOSE AND CAMERA PREPERATION.

ASSEMBLY | DELIVERY HOSE & CAMERA

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Required Tools & Parts:

- Static Mixing Tip
- Y-Connector
- Electrical Tape
- Camera
- Scissors

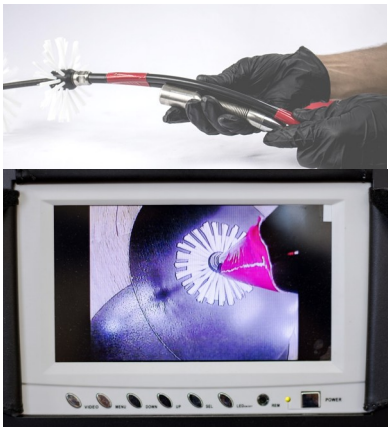


STEP 1 ▶ Attach Static Mixing Tip and Y-Connector 50mm (2'') behind the Sleeve with Electrical tape.

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

STEP 2 ▶ Tape the camera head behind the Sleeve.

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



STEP 3 ▶ Once the brush is in full view on the screen, tape the camera head from the far end all the way past the camera spring.

This will help ensure the camera spring and connectors stay clean.

RESIN PREPERATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Before Beginning Preperation:

Required Tools & Parts

- Xpress Coating System
- Picote Xpress Epoxy
- Picote Reel Heating Blanket
- Nitrile Gloves
- Paper Towels
- Acetone
- Waste Container

TIP: Resins have limited work time.
Higher temperatures will decrease the work time.
If too cold, the resin may become difficult to pump.

Recommended Ambient Pipe Temperature: +20 to +30°C (65-86°F)
Min/Max Ambient Pipe Temperature Range: +15 to +50°C (59-122°F)
Recommended Resin Temperature: +25 to +30°C (77-86°F)

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

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 or dust.
- 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.

STEP 1 ▶ Be sure to check that both Resin Reservoirs have been filled before pumping any resin. This will allow you to have more efficient workflow.

If Resin has been stored in temperatures under 15°C (59°F) temperatures, or if working ambient temperature is below 30°C (86°F) it is advised to heat up the resin buckets using a second Hose Reel Heating Blanket, or in a heated container.

Resin containers should be kept heated to room temperature during entire coating process.

BEFORE each project:

- **Resin should be pre-mixed in their respective buckets to ensure resin & pigment consistency before pouring into Pump Resin Reservoirs.**
- **Resin in the system should be fully recirculated through heated Pump and Reel. This ensures the resins are at the proper viscosity and mix properly.**

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 (picoteinstitute.com).

Pipe Diameter	Number of Applied Coats For Internal Pipe Work (Corrosion Resistance)	Number of Applied Coats For Buried Pipework (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
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

Addition Requirements for Special Applications:

- A minimum of 4 coats need to be applied when the pipe is going to be cleaned using High Pressure Water Jetting.
- Maximum Water Jetting Pressure = 2600 PSI (180 Bar).
- Minimum of 3 coats is needed for abrasion resistance.

STEP 2 ▶ Fill up Pump Resin Reservoirs with corresponding resin components. Using a smaller pitcher to pour the resin will help avoid spills.

⚠WARNING

Be extremely careful not to mix up the BASE (White) and CATALYST (Black) Resins vs their corresponding Resin Reservoirs.

Failure to do this can cause permanent damage to the system!

Resin Maintenance: Recycling Resin / Decrystallizing:

It is recommended to fully recirculate resin through the heated Pump & Reel bi-weekly if in storage, as well as each day prior to beginning coating. Recirculating resin through the heated pump & reel ensures consistent resin viscosity & temperature to maintain a proper mix ratio to produce the highest quality finished product. It also will help to decrystallize resin.

1. Connect Pump power cord and Reel connection to Pump.
2. Connect Remote Control to Hose Reel.
3. Turn on Pump.
4. Confirm Pump thermostat is set to +40°C (104°F). Note: temperature comes pre-set at the factory.
5. Confirm Hose Reel thermostat is set to +40C° (104°F). **Note:** Temperature comes pre-set from factory:
   - Standard Reel: Wrap Reel Heating Blanket around Hose Reel/Delivery Hoses & connect power.
   - Heated Reel: Turn on Reel and allow to heat up.
6. Position Hose Reel close to Pump and release Reel Brake.
7. Unwind enough Reel Delivery Hoses so that they can reach the top of Resin Reservoirs plus an additional 1m (3') off of the Hose Reel.
8. Allow Pump Cylinders and Hose Reel to heat up for at least 60 minutes.
9. Remove plugs from reservoir lid quick connectors. They can be stored in the extra holes on the lids.
10. Connect Hose Reel Delivery Hoses into corresponding BASE (White) and CATALYST (Black) Resin Reservoir Connections on the top of each Reservoir. **Be sure to attach the correct hose to corresponding BASE or CATALYST Resin Reservoir to avoid adding the wrong Resin component into the wrong reservoir. Not ensuring this could cause serious damage to the Xpress Coating System.**
11. Start with Pistons fully raised.
12. Set Direction Switch to COATING mode.
13. Close BASE valve.
14. Press Remote start button to begin pumping.
15. CATALYST pressure gauge will rise before BASE pressure gauge. Keep CATALYST valve open, close as soon as pressure starts to rise on BASE Gauge.
16. Continue until Pistons are lowered fully.
17. Change Direction Switch to FILLING Mode (draws resin into cylinders).
18. Fully raise Pistons.
19. Repeat Steps 12-18 ≈ 3-4 times to completely recirculate and thoroughly heat the resin.
20. Remove Hose Reel Delivery Hoses from the connections on the Resin Reservoirs, wipe clean & recap.
21. **Xpress System is now ready for use.**

SYSTEM PREPERATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Before Beginning Assembly:

Required Tools

- Scissors
- Tubing Cutters
- Towels
- Gloves
- Chemical Spill Kit
- Acetone

WARNING

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

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 or dust.
- 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 towels available. Wearing a double layer of disposable gloves is useful when applying lubricant and working with resins.
- **DANGER, Risk of serious injury from moving parts!**
- Be sure that all machines have the required power supply.
- Test machines and power source to ensure adequate and safe operation.
- Read Operation and Safety Manual.

SYSTEM PREPERATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

⚠WARNING **Before coating with the XPRESS Coating System, the system needs to be bled of any air and filled with resin.**

STEP 1 ▶ Connect Hose Reel Resin Supply Hoses to Pump.
Open Reservoir Valves to relief pressure buildup inside cylinders.
If hoses do not connect with reasonable force, open hose connection to relieve pressure.

STEP 2 ▶ Connect Hose Reel electric cable to Pump.

STEP 3 ▶ Connect Remote cable to Hose Reel and to Remote Control.

STEP 4 ▶ Turn on Pump. Confirm Pump thermostat is set to 40°C (104°F).
Note: temperature comes pre-set from factory at 40°C (104°F).

STEP 5 ▶ Confirm Hose Reel thermostat is set to 35C° (95°F).
Note: Temperature comes pre-set from factory at 35C° (95°F).
- Standard Reel: Wrap Heating Blanket around Hose Reel/Delivery Hoses, connect to power.
- Heated Reel: Reel will automatically heat up.

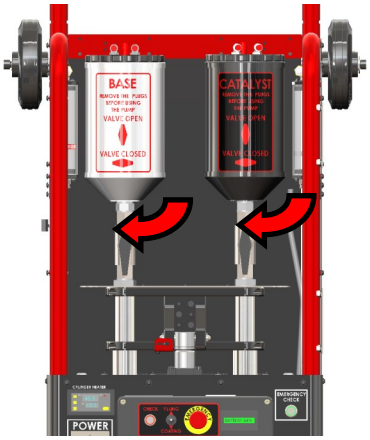
STEP 6 ▶ Press Emergency Check button. If the light on the button does not go off, check all of the emergency stop switches and also ensure that the Safety Screen is fully closed.

STEP 7 ▶ Press Check Button.

STEP 8 ▶ Fill Resin Reservoirs with BASE & CATALYST Resin and reinstall Lids.
NOTE! Resin Reservoirs should be only be filled when Pistons are in the fully lowered position.

STEP 9 ▶ Open Reservoir Valves.

STEP 10 ▶ Allow system to heat for 30-60 minutes.



COATING PROCESS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Before Beginning Coating:

Required Tools & Parts:

- Xpress Coating System
- Picote Miller
- Picote Xpress Resin
- Nitrile Gloves
- Scissors
- Paper Towels
- Acetone
- Waste Container
- Chemical Spill Kit

WARNING

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

Personal Protective Equipment (PPE)

- Always use Personal Protective Equipment including suitable protective clothing, footwear, plus 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 or dust.
- A suitable respirator should be used to prevent any dust or fumes being inhaled or consumed, which could cause occupational asthma or dermatitis.
- Have plenty of gloves, towels, rags, acetone and a 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 work crew large enough to handle the coating application!

COATING PROCESS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Always fully recirculate Resin through heated Pump & Reel prior to start of each project!

STEP 1 ▶ Select COATING mode on Direction Switch.

STEP 2 ▶ Select slowest pumping speed on the Remote. When coating, slowest speed is recommended.

STEP 3 ▶ Remove End Caps from Delivery Hoses. Place ends of Delivery Hoses in to a waste resin container. Store End Caps in the Reservoir Lid's blank holes.

STEP 4 ▶ Close BASE Reservoir Valve.

STEP 5 ▶ To start pumping, press Start Button on Remote.

STEP 6 ▶ Watch pressure gauges. CATALYST pressure will rise before BASE pressure. Keep CATALYST valve open, close as soon as pressure starts to rise on BASE Gauge. The pressure difference shouldn't be more than 15 Bar (217 PSI). Pressure should rise within a few seconds. If it takes longer than 5 seconds to build pressure, there is air in the system, and the resin needs to be recirculated.

During normal operation, visible bubbles in the base resin hopper are normal.

NOTE! During coating, pump stops and resumes pumping automatically. This is normal.

STEP 7 ▶ Pump until resin can be seen dispensing our of both delivery hoses.

STEP 8 ▶ Connect Delivery Hoses to a clean Y-connector and Static Mixing Tip.

STEP 9 ▶ Remove Heating Blanket from the Hose Reel (if used). If ambient temperature is below 25°C (77°F), place Blanket back on between coats to keep hoses/resin warm.

STEP 10 ▶ Assemble hoses, Miller, and camera assembly as previously detailed.
Push assembly to far end of pipe area to be rehabilitated.
Begin pumping resin.

STEP 11 ▶ Watch CCTV screen for resin flow. Note: it may be difficult to see the flow of resin if camera is turned upside-down.

Watch closely. Move camera and Miller shaft back and forth if necessary to check for resin flow.

COATING WITH THE SYSTEM

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

STEP 12 Start coating from the far end. Pump out resin and brush it on in 1m (3 ft sections). Pull slowly and evenly.

Pay close attention to resin flow and lay a consistent bead of resin into the pipe by watching the thickness of the resin bead around the brush edge.

STEP 13 Stop Pump and brushes. Push back into pipe to visually verify coating has covered all areas evenly.

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

Brushes should always be rotating when being pulled back through the pipe for coating and stationary when being pushed into the pipe for visual inspection.

STEP 14 Average coat thickness is 1.0 mm (0.039”).

Carefully inspect and ensure resin fully covers the pipe surface. Be especially mindful when coating around bends. Be sure to use special brush setup recommendations for coating in bends.

STEP 15 Between coats, rinse and spin brushes in a bucket of acetone and clean off any excess resin before it has a chance to harden. Be sure to use PPE along with a lid and rags/cover to prevent acetone from splashing out of the bucket.

Remove Mixing Tip & Y-connector. Pump out a small amount of resin into a waste bucket. Note: Some BASE component might come out from the CATALYST side. Cap both hoses.

STEP 16 To speed up drying time, allow resin to gel for 10 minutes after a coat is complete, then apply heat using the Picote Heater.

STEP 17 If the next coat is applied after 12 hours, the pipe will need to be abraided with Smart Cutter™ Side Grinding Panels, and any dust or debris removed from the pipe before the next coat is applied. Failing to do so will cause coating bond failure.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Before Beginning Cleaning Process:

Required Tools

- Nitrile Gloves
- Acetone
- Brake Cleaner
- PVC / Duct Tape
- Waste Container
- Paper Towels or Rags
- Suitable Bucket with Lid
- Chemical Spill Kit

WARNING

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

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 or dust.
- A suitable respirator should be used to prevent any dust or fumes being inhaled or consumed, which could cause occupational asthma or dermatitis.
- 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 container nearby.

SYSTEM CLEANING

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Between Coats:

STEP 1 ▶ Remove Static Mixing Tip and pump out a small amount of resin to clear out possible backflow of mixed resin which could contaminate Delivery Hoses.

STEP 2 ▶ Fill up Resin Reservoirs and Pump Cylinders if necessary.

STEP 3 ▶ Connect Delivery Hoses to Resin Reservoir Lid Quick Connects.

After Coating is Finished:

STEP 1 ▶ Try to leave Resin Reservoirs as empty as possible to help avoid possible spillage during transportation. However, make sure Pump doesn't draw air into the cylinders because of too little resin volume inside Reservoirs. You can pump excess resin back into individual component buckets (select correct/corresponding bucket to avoid mixing BASE & CATALYST.

STEP 2 ▶ Remove and discard Static Mixing Tip. Cap Delivery Hoses.

For Small Diameter Setup: Discard Static Mixing Tip and Small Diameter Delivery Hose if there is one after the Static Mixing Tip. Cap Delivery Hoses.

STEP 3 ▶ Remove Resin Supply Hoses from Pump. Clean both ends of connectors with acetone.

STEP 4 ▶ Return Reservoir Lid Plugs back into Quick Connectors. Ensure Lids are closed properly.

STEP 5 ▶ Collect all waste including used gloves, delivery hoses, rags etc. in thick waste disposal bags and seal properly. If large amounts of mixed coating resin are left, let it harden separately. Dispose according to local, regional, and national waste laws and regulation. Always follow instructions from coating resin SDS.

NOTE! Mixed resin will generate heat while curing. Do not place large amounts of mixed resin inside waste bags or buckets before it has cured. Keep excess mixed resin in a 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 entering the pipe. The pipe must stay clean and dry during the entire coating and curing process. Water can prevent the resin from bonding properly. Resin is ready for additional coats once surface is dry to touch.

AMBIENT CURE TIME: approximately 1.5 hrs at +21°C (70°F).

HEAT CURE TIME: approximately 1 hr at +25°C (77°F) if Picote Heater is used.

Note: When adding heat the coating should be allowed to gel 15 minutes after each coat before applying the Picote Heater. 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.

If previous coat sits longer than 12 hours before an additional coat is added, pipe will need to be abraided with Smart Cutter™ Side Grinding Panels, and any dust & debris removed from the pipe.

Pipe Diameter	Number of Applied Coats For Internal Pipe Work (Corrosion Resistance)	Number of Applied Coats For Buried Pipework (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
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

Additional Requirements for Special Applications:

- A minimum of 4 coats need to be applied when the pipe is going to be cleaned using High Pressure Water Jetting*.
- *Maximum Water Jetting Pressure: 2,600 PSI (180 Bar).
- Minimum of 3 coats is needed for abrasion resistance.

RETURN TO SERVICE:

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

- **4 HOURS: Light use/restore flow, non-heated water contact**
- **24 HOURS: Pressure testing, heated water contact, fully cured**

RESIN INFORMATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

100% Solids Epoxy Resin

Mixing ratio: 1:1

Pot Life: 15 min at 25°C (68°F)

Package Size: 11.13 Litre (2.94 gallon) buckets.

Re-Coat Times:
- Approximately: 1 hour and 30 minutes at +21°C (70°F)
- Approximately: 1 hour at +25°C (77°F)
- Can be recoated within 12 hours with no prep, Picote Smart Cutter™ & side grinding panels must be used to abrade the prior coat's surface if recoating after 12 hrs.

Restore Pipe Flow: 4 hours

Full Cure: 24 hours

Installation Temperature Range : +15 to +60°C (59-140°F)

Finished Product Temperature Resistance:
Up to +82°C (180°F) constant of hot water. Chemicals may change temperature resistance, please contact Picote Reseller or Picote Solutions with any questions.

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

Resin Life:
- Unopened Buckets: 2 years from packaging when kept in accordance with storage instructions included in SDS and Technical Data Sheet.
- Opened Buckets: 3 months, if securely closed and kept in accordance with storage instructions included in SDS and Technical Data Sheet.
- In Hose Reel: 1 year, but resin should be reconditioned bi-weekly in storage, and before each use by fully circulating the resin through the heated pump and reel.
- **Resin Pigment Separation: The resin pigment can separate from suspension. While this doesn't effect the final quality of the install, it will cause color changes and make it impossible to confirm a proper mix visually. We highly recommend stirring the resin in the bucket (using a epoxy stirrer to eliminate aeration) prior to pouring into the resin reservoirs). The resin buckets can also be flipped several times to help keep the pigmentation uniform.**

Industrial Safety: Mixed product should not be allowed to come into contact with skin (it adheres).

Gas Emissions / VOC: No harmful VOCs (Zero VOCS) released during mixing or after hardening.

Safety Data Sheet (SDS): Available via QR code on resin buckets, as well as at Picote Institute (picoteinsitute.com)

RESIN SDS AND OPERATOR CHECKLISTS ARE AVAILABLE TO DOWNLOAD FROM THE PICOTE INSTITUTE.

MAINTENANCE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

CARING FOR MILLER FLEXIBLE SHAFT:

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 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.

PUMP & MILLER PARTS:

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

PLEASE READ YOUR SPECIFIC MILLER OPERATION & SAFETY MANUAL FOR DETAILED INSTRUCTIONS ON HOW TO PROPERLY MAINTAIN THE MACHINE.

MAINTENANCE PROGRAMME:

Maintenance Task	Before every use	Every month
Recirculate resin through heated pump & reel	X	
Check for leaks	X	
Check condition of pump assembly	X	
Check lubricant level and quality	X	
Heat up the system to maximum temperature		X

WARRANTY PERIODS:

Service Period	3 Months	12 Months
A		
B		

A	Pump & spare parts, except
B	Service Centre repair work

Checking Pump Piston Lubricant Levels:

Both Pistons have their own Lubricant Reservoirs. Check the lubricant level by raising the Piston to the fully raised position. When in this position the lubricant level should be at the MAX level indicated on the Reservoirs.

If the lubricant level has gone over MAX level without adding any oil, that means the seals are leaking and need to be serviced. Contact Picote Solutions, your reseller or a Picote Authorized Service Center.

If the lubricant level has dropped, add lubricant. If the lubricant level drops quickly after use check that the pistons are not retracted while the reservoir valves are closed. Retracting the pistons while the reservoir valves are closed, will cause vacuum behind the seal which will draw lubricant to the wrong side.

Adding Piston Lubricant:

1. Remove hose from bottom of Lubricant Reservoir.
2. Guide hose through Pump side panel.
3. Place hose in empty container.
4. Open RESERVOIR valves.
5. Cycle Pistons to remove old lubricant.
6. Add 25ml (0.85 oz) lubricant to a container.
7. Place hose into the lubricant container.
8. Draw lubricant into Pistons:
   - Close Reservoir Valves.
   - Change Directional Switch to COATING.
   - Fully lower Pistons.
9. Reconnect hose.
10. Repeat process to raise pistons.
11. Check lubricant level.
12. Add or remove lubricant if necessary.
13. Repeat for other Reservoir if needed.

Cleaning Xpress Coating System:

Use a clean rag and hand sanitizer or brake cleaner to wipe off resin smudges before they dry.

Note: Do not clean the lubricant reservoirs with other than clean water and a clean cloth!

Xpress Coating Pump System 2.0

- For 1¼-12" Pipes
- 131 ft range

The new Xpress Brush Coating System provides faster curing times, no waste, less mess, and minimal setup time for revolutionary cost and time savings, featuring dual hydraulic resin cylinders. It has a built-in 24v, 882Wh battery providing several hours of working time, or it can also run continuously when plugged in.

The new 1:1 epoxy features an increased thickness per layer and as little as 1 hour curing time between coats at 77˚F.

The system also includes a motorized Delivery Hose Reel that stores 131 ft of delivery hose on board, allowing for easier setup, movement and storage. The included Reel Heating Blanket helps maintain the resin temperature. Additionally, the package comes with a Xpress Static Mixing Tip and Y-Fitting package (10 pieces).

Option 1: Updated Pump, new larger heated fill/resin tanks, new caps on fill/resin tanks, additional lifting handles, flow adjustment, current hose with heated blanket.

Option 2: Same as option 1, but with updated heated delivery hose reel with heated hoses.

Product #	Model/Part
2220300000US	Xpress Coating Pump System 2.0 110v Option 1
2220300020US	Xpress Coating Pump System 2.0 110v Option 2

Xpress Coating Pump 1.0 to 2.0 Upgrade Package

Available Summer 2025 - Upgrade existing Coating Pump to the Xpress Coating Pump 2.0

Picote Xpress Resin

Xpress Epoxy Base and Catalyst mixes at 1:1 ratio. 100% Solids Epoxy features a superior thickness of ≈ 1mm per layer and as little as 1 hour curing time between coats at 77˚F using Picote Heater. Larger resin containers reduce waste and costs.

Product #	Resin
2220300005B	Picote Xpress Epoxy Base 2.94gal / 30.86lbs (Part A)
2220300005C	Picote Xpress Epoxy Catalyst 2.94gal / 24.15lbs (Part B)

Picote Heater

Decrease time between coats for Picote Brush Coating™ system. Includes 16 ft Heater Hose. Air outlet temperature is limited to 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
9990001099	Heater Hose 16.4 ft

Coating & Cleaning Brush

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"
2120010075	3" for 2" Pipe	3/8"
2120010100	4" for 3" Pipe	3/8"
2120010125	5" for 4" Pipe	3/8"
2120010150	6" for 4" Pipe	3/8"
2120010175	7" for 5" Pipe	3/8"
2120010200	8" for 6" Pipe	3/8"
2120010225	9" for 7" Pipe	3/8"
2120010250	10" for 8" Pipe	3/8"
2120012100	4" for 3" Pipe	1/2"
2120012125	5" for 4" Pipe	1/2"
2120012150	6" for 4" Pipe	1/2"
2120012175	7" for 5" Pipe	1/2"
2120012200	8" for 6" Pipe	1/2"
2120012225	9" for 7" Pipe	1/2"
2120012250	10" for 8" Pipe	1/2"
2120012275	11" for 9" Pipe	1/2"
2120012300	12" for 10" Pipe	1/2"
2120012350	14" for 12" Pipe	1/2"

Spare Parts

Product #	Model/Part
900004057S	Xpress Transparent Delivery Hose for 1¼ - 2" pipes - 16 ft.
900004056S	Xpress Transparent Delivery Hose for 2-3" pipes - 49 ft.
2220300008	Xpress Static Mixing Tips & Y-Fitting Package, 10pcs
2220300009	Xpress Static Mixing Tip Without Y-Fitting (10pcs)
2220300010	Xpress Y-Fitting For Mixing Tip

Brush Stopper 1/3"

900000338

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

Brush Stopper 1/2"

900000756

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

Xpress Coating Pump System 2.0

- For DN32-300 Pipes
- 40 metre range

The new Xpress Brush Coating System provides faster curing times, no waste, less mess and minimal setup time for revolutionary cost and time savings, featuring dual hydraulic resin cylinders. It has a built-in 24v, 882Wh battery providing several hours of working time, or it can also run continuously when plugged in.

The new 1:1 epoxy features an increased thickness per layer and as little as 1 hour curing time between coats at 25°C.

The system also includes a motorised Delivery Hose Reel that stores 40m of delivery hose on board, allowing for easier setup, movement and storage. The included Reel Heating Blanket helps maintain the resin temperature. Additionally, the package comes with a Xpress Static Mixing Tip and Y-Fitting package (10 pieces).

Option 1: Updated Pump, new larger heated fill/resin tanks, new caps on fill/resin tanks, additional lifting handles, flow adjustment, current hose with heated blanket.

Option 2: Same as option 1, but with updated heated delivery hose reel with heated hoses.

Product #	Model/Part
2220300000	Xpress Coating Pump System 2.0 230v Option 1
2220300000UK	Xpress Coating Pump System 2.0 110v Option 1
2220300020	Xpress Coating Pump System 2.0 230v Option 2
2220300020UK	Xpress Coating Pump System 2.0 110v Option 2

Picote Xpress Resin

Xpress Epoxy Base and Catalyst mixes at 1:1 ratio. 100% Solids Epoxy features a superior thickness of 1mm per layer and as little as 1 hour curing time between coats at 25°C. Larger resin containers reduce waste and costs.

Product #	Resin
2220300003B	Picote Xpress Epoxy Base (14kg/11.13L)
2220300003C	Picote Xpress Epoxy Catalyst (11kg/11.13L)

Picote Heater

Decrease time between coats for Picote Brush Coating™ system. Includes 5m Heater Hose. Air outlet temperature is limited to +55°C. 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
1350000024	Picote Heater 230v
1350000024UK	Picote Heater 110v
9990001099	Heater Hose 5 metres

Xpress Coating Pump 1.0 to 2.0 Upgrade Package

Available Summer 2025 - Upgrade existing Coating Pump to the Xpress Coating Pump 2.0

Coating & Cleaning Brush

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	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
2120000220	220mm for DN200	8mm
2120010075	75mm for DN50	10mm
2120010100	100mm for DN70	10mm
2120010125	125mm for DN100	10mm
2120010150	150mm for DN100	10mm
2120010175	175mm for DN125	10mm
2120010200	200mm for DN150	10mm
2120010225	225mm for DN175	10mm
2120010250	250mm for DN200	10mm
2120012100	100mm for DN70	12mm
2120012125	125mm for DN100	12mm
2120012150	150mm for DN100	12mm
2120012175	175mm for DN125	12mm
2120012200	200mm for DN150	12mm
2120012225	225mm for DN175	12mm
2120012250	250mm for DN200	12mm
2120012275	275mm for DN225	12mm
2120012300	300mm for DN250	12mm
2120012350	350mm for DN300	12mm

Spare Parts

Product #	Model/Part
900004057S	Xpress Transparent Delivery Hose for DN32-50 pipes - 5m
900004056S	Xpress Transparent Delivery Hose for DN50-75 pipes - 15m
2220300008	Xpress Static Mixing Tips & Y-Fitting Package, 10pcs
2220300009	Xpress Static Mixing Tip Without Y-Fitting (10pcs)
2220300010	Xpress Y-Fitting For Mixing Tip

Brush Stopper 8mm

900000338

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

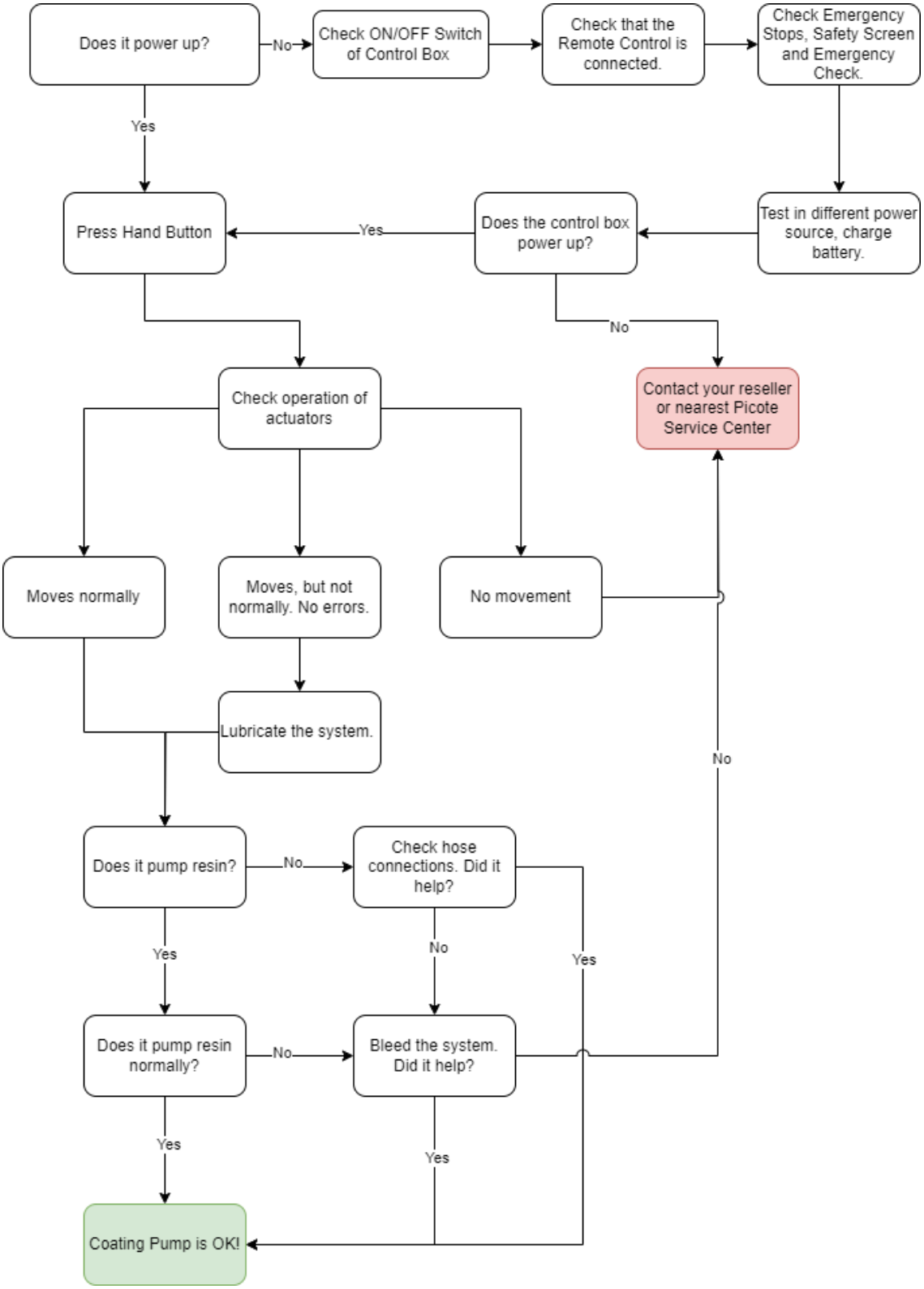
Brush Stopper 12mm

900000756

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

TROUBLESHOOTING FLOWCHART

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



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

TROUBLESHOOTING FAULT CODES

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

TROUBLE SHOOTING:

The Display Screen on the Xpress 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 Fix
Temperature Low	Actuator temperature too low	Let the machine warm up in room temperature.
Temperature High	Actuator temperature too high	Ambient temperature might be too high. Let the machine cool down.
Overload Flag	Actuator power limit	Actuator overload. Perform de-crystallization as instructed.
Backdrive Flag	Actuator movement without user command.	Avoid vibrating surfaces. Restart the system.
Parameter Flag	Parameters not within specified range.	Parameter file might be corrupted. Contact Picote Solutions or reseller.
E-code 1	Communication error.	Check the error and continue working. If the problem persists, restart the system and connect the system to AC power. If the error comes back constantly, contact Picote Solutions or reseller.
Position Difference	Actuators out of sync.	Release the Start Button and press Check Button. Press Start Button again to level the actuators.
Can Bus Connection		Restart the system.
Can Port 1 Failure	Actuator 1 CAN error	Restart the system.
Can Port 2 Failure	Actuator 2 CAN error	Restart the system. If the problem persists or comes back constantly, contact Picote Solutions or reseller.

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

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.

Certificates are awarded for all certification trainings.

Visit our website at www.picotegroup.com or contact us at **training@picotesolutions.com** to find out about course offerings, pricing, and scheduling.

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.

Visit our website at www.picotegroup.com or contact us at **training@picotesolutions.com** 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 Installer Training for Picote Xpress Coating System 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.

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