



# Application & Equipment Training Manual



**MA-25-C**

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# Safety

All Enviropeel equipment is built with state-of-the-art technology and complies with the applicable safety regulations to be operated easily and safely by the certified user. Inadequately trained users can cause material and personal damage through inappropriate behavior. This chapter informs you of the safety concept and the prerequisites which must be met for a safe and optimal operation of the Enviropeel unit.

This chapter must be read and understood by all persons authorized to commission, operate, maintain or repair the Enviropeel unit.

## References contained in the Manual

This manual will show you different reference symbols which warn of possible dangers and situations and which must be observed under all circumstances. Non-observance may lead to injury, death and/or damage to the product and the environment.

	<b>Danger</b>	Warning of dangerous electrical voltage. Risk of injuries including death and destruction of the appliance
	<b>Warning</b>	Warning of hot surface and hot material. Risk of minor to severe burns.
 	<b>Warning</b>	Warning of high pressure in the hot-melt system. Risk of hot material splashes and parts flying around.
	<b>Caution</b>	Possible inhalation of vapors. Risk of harmful vapor levels for persons and environment
	<b>Warning</b>	Warning of a general danger area. Risk of minor injuries
<b>Protection from dangers - PPE</b>		
  	Regulation symbols indicating that gloves, protective goggles or protective clothing must be worn.	

## Dangers of Handling and Operating the Equipment

Enviropeel equipment is built with the latest technology and complies with the applicable safety regulations. Some risk from operating machinery will always exist - these risk may not always be obvious and operating personnel should take their own and others' safety seriously:



### Danger of burns

There is a danger of suffering burns from exposed hot components when the unit is in operation and from contact with the melted E170 material (temperatures up to 180 Degrees C or 356 Degrees F)

Heat-resistant protective gloves must be worn for all adjustment or maintenance jobs on hot parts of the unit or in case of possible contact with the melted E170.

Parts of the unit remain hot for some time after the unit has been switched off. The unit must not be moved while it contains melted material. Failure to comply may result in injury or damage from melted E170.



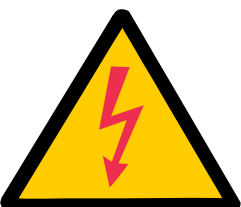
### Danger of Splashing

The E170 in the lines is under a high pressure. There is a danger of hot splashes occurring at the application heads or if the pressure system is breached. If the pressure system has to be opened, the entire appliance must be relieved of pressure beforehand. Protective goggles must be worn under all circumstances for all adjustment or maintenance work on parts under pressure such as pump, distributor block, filter, heated hose, or application head.



### Danger from rotating parts

Motor drive shaft rotates and care should be taken to avoid contact with rotating parts.



### Danger of Electrocution

Operating voltage 220 volts.

Danger of fatality or serious injury from contact with live components.

Connection of the appliance to the power mains or other work on the power circuit may only be carried out by persons trained for the purpose, i.e. electricians. The protective covers may only be removed if the unit is disconnected from the power supply.



## Irritation of mucous membranes by vapors

Even if the prescribed processing temperatures are complied with, E170 may emit odors and high vapor concentrations might lead to irritation of the mucous surfaces.

Do not inhale vapors and ensure the unit is operated in sufficiently ventilated areas. Keep the tank lid closed. Do not exceed the recommended processing temperature. Read the E170 data sheet and observe all its recommendations.

## General Safety Prescriptions

The following general safety prescriptions must be observed:

- The unit must only be operated, maintained and repaired by authorized and trained personnel.
- The system must be maintained and only operated in serviceable condition and using the most recent operating guidelines. If safe operation cannot be assured, the unit should be switched off and protected against unintentional use until repaired by authorized personnel.
- In addition to the information contained in the operating manual, you must comply with legal requirements and the provisions on accident prevention and protection of the environment in your country.
- Do not modify the appliance in any way without receiving written approval from Enviropeel USA.
- Whenever any major technical issues, deficiencies or abnormal operational stresses are observed during use of the equipment, the user must notify Enviropeel USA immediately.
- All users must obtain and familiarize themselves with the contents of the Enviropeel 170 Safety Data Sheet.
- All users **MUST** wear the appropriate personal protection equipment (PPE): safety goggles, gauntlet-style gloves and overalls covering arms and legs.
- Application in enclosed areas may require ventilation.

# Safety

## Safety Features of the Appliance

The units are built to the latest safety standards and feature the following safety systems:

- Appliance switch – Interrupts the power supply to the control of the appliance
- Program sequence monitoring – In case of errors all outputs are switched off and the program is restarted

## Responsibility of the Operating Company

The company operating this unit undertakes to only use suitably trained and authorized personnel. In addition, operators must be familiar with the generally applicable rules and regulations pertaining to safety at work, the prevention of accidents and protection of the environment.

The unit may only be operated if it is in safe working order and in compliance with the most recent operating instructions. If safe operation cannot be assured, the unit should be switched off and protected against unintentional use until repaired by authorized personnel.

## Qualified Personnel

The unit must only be operated, serviced and repaired by authorized personnel who must be familiar with site safety and accident prevention regulations and aware of company internal work instructions.

The owner/operator of the appliance is responsible for ensuring all personnel are fully trained. This is best achieved through product-specific training by authorized Enviropeel training personnel.

## Personal Protective Equipment



Protective clothing covering arms and legs must be worn at all times when operating equipment!



Gauntlet-style gloves and protective goggles must be worn at all times when operating, servicing or repairing hot and pressurized equipment. Danger of hot material splashes and burns!



Please observe the information below. If an unexpected emergency occurs, this information will help you to prevent injury and act appropriately to minimise the effects on personnel and equipment.

## Skin Burns

Contact with hot Enviropeel material or components may cause long-term effects. All burns, particularly on the face or hands, must be treated by a doctor.

- Whenever possible, cool burns as quickly as possible under cold, flowing, clean water.
- Then apply sterile material, e.g. sterile gauze compresses.
- Do not use wound powder or oil, ointment or similar.
- If no sterile bandage material is available, use freshly ironed linens.
- Do not open or remove blisters.

## Electrical Accident

- Switch the power off immediately.
- If you are affected personally, you must apply all your strength to break free from the power circuit (push yourself away, drop on the floor, pull out power cord by walking away, etc.)
- Don't forget to protect yourself in a rescue operation. Stand on an insulated spot, do not touch a person who may still be connected to an electrical current except by using insulated dry objects (clothes, wooden handle, etc.)
- Rest the injured person correctly. Give artificial respiration immediately if the person subject to the accident stops breathing. In case of cardiac arrest, CPR should be administered by a qualified individual.
- Call for emergency medical help immediately.

## In case of a fire

Only use a CO2 extinguisher. Water can only be used to control burning E170 material - not on the equipment. All operating personnel must know the location of the nearest fire extinguisher.

## **ELECTROCUTION DANGER - DO NOT USE WATER ON EQUIPMENT FIRE**



Fire in an Enviropeel application machine must **NEVER** be extinguished with water! There is danger of death by electrocution, danger of burns from hot water, steam and splashing hot material.



# The Enviropeel System

The Enviropeel system uses a corrosion-inhibiting sprayable thermoplastic (CIST) to provide ingress protection for rotating equipment and an active anti-corrosion barrier for the protection of steel substrates. The system uses a specially-designed heating and pumping unit to spray the Enviropeel E170 on to objects of any size or shape.

The Enviropeel system consists of the following:

## 1) Enviropeel Application Unit

The MA25-C has a central digitally-controlled heating and pumping system running a powered, temperature-controlled heated hose and spray gun.



## 2) Enviropeel E170

E170 is a thermoplastic polymer with its own built-in corrosion inhibiting oil. It is solid at normal temperatures, but forms a liquid when heated in the Enviropeel Application Unit to enable spray application. It rapidly cools after application, returning to its normal solid state, encapsulating the substrate within a perfectly fitting anti-corrosion barrier. It is supplied as chips to speed melting and make handling easier. Inhibitors are continuously released from E170 to provide active corrosion inhibition for the lifetime of the system. E170 is strippable, not-toxic, recyclable and reusable, making it easy to use and environmentally friendly.



### Key attributes of the Enviropeel system:

- Environmentally friendly
- Recyclable and reusable - reduces waste
- Easy spray application
- Minimal preparation
- Built-in inhibitor
- Strippable
- Suitable for any substrate
- High dielectric strength
- Flexible and tough
- Moves with substrate
- Fits any shape or size
- Standard color gray, available in a variety of colors
- Non-toxic - safe in use and for disposal
- Solvent-free





# Site and Quality Requirements

## Setting up for an on-site application

### POWER SUPPLY

- The MA25 is available in a variety of configurations to suit local and international requirements. Check your unit to ensure it conforms to the site supply if using on-site power. When using a generator the minimum specification is 120/240 volt single phase with at least 7500 watts.

### MOBILIZATION

- Prior to mobilization a full equipment and materials check should be made to ensure machine and electrical integrity as well as appropriate quantities of consumables and accessories are available.
- A full site inspection and risk assessment is essential to optimize access to substrate and power for equipment and access to substrate for operator.
- Prior to application, all personnel should be aware of identified risk factors.
- Enviropeel is applied at extremely hot temperatures and every precaution should be taken to avoid contact with hot material and equipment - appropriate PPE must be worn at all times by application personnel as well as all visitors and site personnel within the sphere of operation.
- Equipment should be mobilized on a flat, level surface as near to the power supply as practicable keeping in mind that using a long cord can lead to voltage drop. If voltage drop is excessive, the unit will require significantly longer heat up times.
- Secure a minimum 15 ft radius around your work area and ensure only authorized personnel with appropriate PPE enter the workspace.

Open the back door of the unit and uncoil hose before turning on. Leaving the hose coiled in the back of the unit during heating can cause overheating and damage the hose. The uncoiled hose can be left to rest on the unit during warm up. Do not leave the hose on the ground as this creates a trip hazard, exposes the hose to damage and may slow heating in cold weather.

### SITE CONDITIONS, QUALITY CONTROL AND INSPECTION

- Application to corroded substrates may require application of pre-treatment oil, ensure sufficient quantities are available.
- Potential ingress points (eg vertical pipes) should be identified and appropriate control measures should be taken.
- Application personnel must ensure film continuity of each coat, maximise inter-coat adhesion through proper cleaning between coats and monitor film thickness to ensure minimum DFT is maintained.
- Each individual application should be quality checked and inspected for continuity, DFT and ingress control. If necessary mirrors or video equipment should be used where access for inspection is restricted.

## Equipment Operation

**WARNING:** Nobody should attempt to power up or use this equipment without completely understanding the steps and procedures outlined in this manual.

All users **MUST** wear the appropriate personal protection equipment (PPE): safety goggles, gauntlet-style gloves and overalls covering arms and legs and be familiar with general safety guidelines on page 5.

USE THE FOLLOWING SEQUENCE:

Step 1: Open rear door and uncoil hose (Fig1).

Step 2: Connect to a 220 volt, 30 amp, single phase power source (Fig1).

Step 3: Switch machine Power ON (Fig 2).

Step 4: Touchscreen will start up with red backlight and Circulation Pump OFF - switch Circulation Pump setting to AUTO to start heating process (Fig 3).

Step 5: Make sure flow valve is open for tank recirculation during heating

Step 6: Backlit screen will continue to show red until machine is ready to spray

Step 7: Temp points are set by default to 338 degrees. Use touchscreen to adjust the Set Point, if necessary.

Step 8: Machine will not be ready to spray until all zones (Tank, Hose and Head) reach Set Point temps

Step 9: Backlit screen will turn Green when Set Point has been reached and machine is ready to spray (Fig 4).

Step 10: Adjust material flow by spraying material back into tank, turning flow control valve clockwise until desired stream is reached. Using the air regulator, add air pressure until slight fan pattern is reached.

Step 11: Apply Enviropeel to target substrate. Top off melt tank regularly to replace applied material.

Step 12: When not applying, open flow control valve to allow recirculation in tank

**Note:** If you need to service machine or work on anything downstream, make sure circulation pump is switched off.

To troubleshoot any problems with the machine, please call the Enviropeel USA Service Center on 317-631-9100.

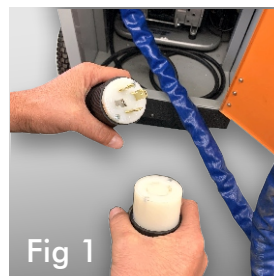


Fig 1



Fig 2

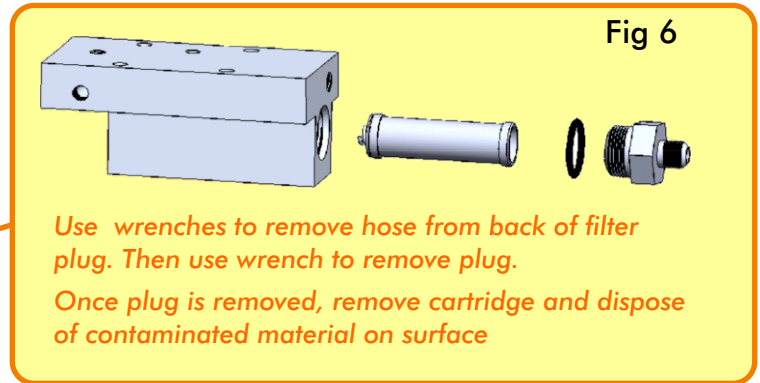
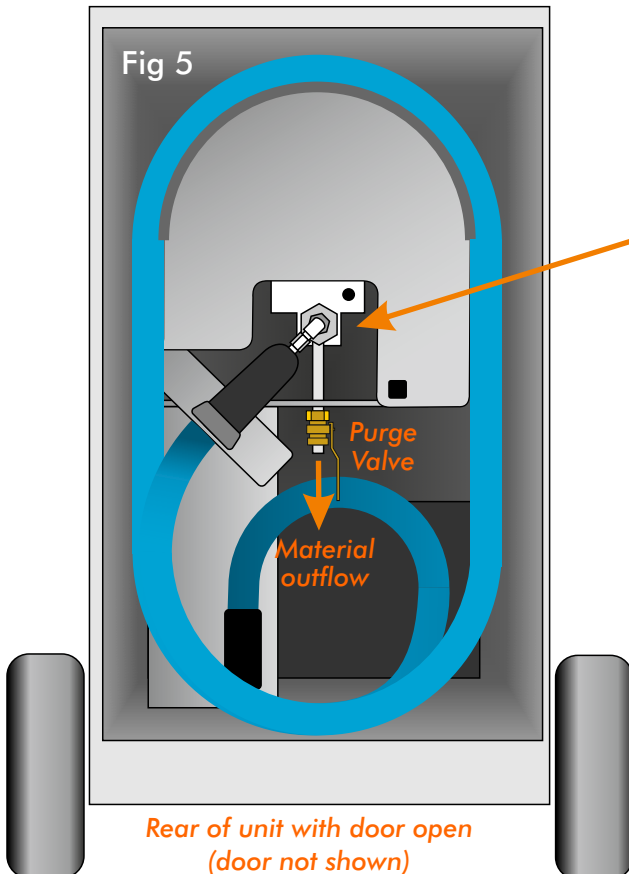


Fig 3



Fig 4

- Step 13: It may be necessary to purge the filter if spray stream becomes intermittent or erratic. With pump control on, open valve at base of tank (Fig 5) and allow product to flow into holding container until full. Close valve and allow product to cool before removing and disposing properly.
- Step 14: It will be necessary to remove and clean filter cartridge occasionally. (Fig 6) This must be done while material is at operating temperature. During this process, **PUMP CONTROL MUST BE OFF** and all PPE must be used! With pump control in the "OFF" position, use wrenches to remove hose from back of filter plug. Then use wrench to remove plug. Once plug is removed, remove cartridge and dispose of contaminated material on surface. When clean, put cartridge back in valve body and snugly tighten filter plug. Only when this is complete can you turn pump control to the "ON" position.
- Step 15: When finished with application, turn all switches to the "OFF" position.
- Step 16: When product is cool, place coiled hose in rear compartment and shut door. Machine can now be transported.



# Enviropeel application

## Surface Preparation

Unlike any painting system, the Enviropeel coating system can be applied on minimally prepared surfaces. Although any loose flaking rust or paint should be removed from the surface, this can be easily achieved by means of a wire brush and/or scraper. The intention of the surface preparation is to allow full contact of the Enviropeel with the surface that is to be protected, without any interference from contaminating solids or fluids.

## Essential Criteria

- For effective performance, the surface of the substrate must be moisture-free prior to the application of Enviropeel.
- It is important that severe contamination of the substrate such as petrolatum and heavy grease should be removed prior to Enviropeel application as this prevents contact of the Enviropeel film with the substrate.
- Where firmly adhered corrosion remains on the substrate Enviropeel pre-treatment inhibitor must be applied.
- Under certain circumstances it may be necessary to pressure wash the substrate to remove contamination. After pressure washing, the surface should be dried using compressed air - taking care to blow moisture from voids and joints.

*Special note: Prior to application a survey of the substrate should be undertaken. Full service conditions, humidity, substrate & ambient temperatures should be recorded.*



*Above: surface preparation using wire brush. Below: pressure washing to remove heavy grease.*

## Important factors before application

Before application there are many factors to consider:

- Flange orientation - application to flanges on vertical pipes may require edge sealing to avoid moisture ingress.
- Surface condition of the substrate - as noted, loose contamination must be removed. For heavy rust, where complete removal is impractical, Enviropeel pre-treatment oil must be applied to maintain inhibition performance of the application.
- Gaps or voids between flanges - special techniques, such as matrix tape may be required to bridge gaps.
- Possible condensation on the surfaces of the substrate. NB - This includes potential condensation or frosting (from low temperature fluids) during use - even if the application is made in the dry.
- Size and complexity of the substrate - for large flanges, high capacity application units will be required to maintain continuity.
- Access - before application, problems with substrate access should be assessed and measures taken before application - this could include step-ups, scaffolding, inspection mirrors, removing obstacles etc.



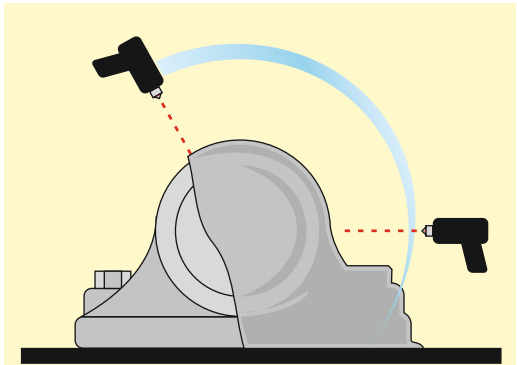
*Special Note: always ensure the surface is free from water prior to the application of Enviropeel - blow dry using airline if necessary, especially in crevices and joints.*



## Applying to bearing housing and shaft assembly

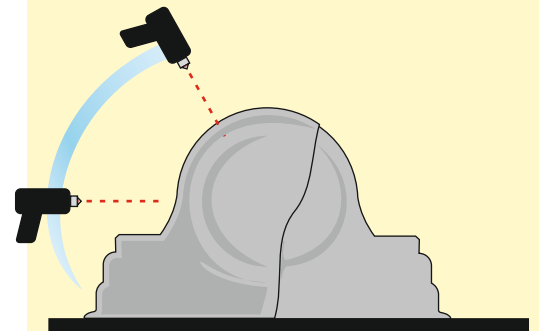
- 1 Make sure power is off to any drive/equipment that might cause the bearing and shaft to turn.
- 2 Clean bearing and shaft surfaces with wire brush or rag. Pay particular attention to any surface that will be rotating.
- 3 Apply Enviropeel pre-treatment inhibitor oil to all surfaces.
- 4 Each coat is applied in four sections: apply first coat to front right of bearing, starting with gun at the 11 o'clock position and working down to 6 o'clock.
- 5 Carefully wipe overlap areas before each new section.
- 6 Mirror the process for the front left, overlapping the first application.
- 7 Do this to other end of bearing housing, extending the coating out onto the shaft for 1"- 3".
- 8 Trim excess Enviropeel.
- 9 Inspect to ensure full coverage of the housing with no holes.
- 10 Carefully wipe the surface of Enviropeel with a lint-free cloth before applying second coat.
- 11 Repeat steps 4 to 9 for second coat.

*Below: successfully completed application on a conveyor tail pulley pillow block bearing.*

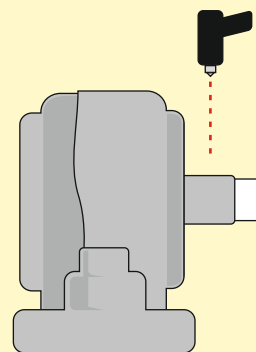


Coat in four sections: facing front of bearing, apply first to right hand front from 11 o'clock to 6 o'clock.

Mirror for left hand side and then repeat process on opposite end, overlapping front to complete first coat.



Once first coat is complete, check all joins, wipe to remove residual oils and repeat the process for the second coat.



Spray on to rotating shaft, to prevent ingress of contaminants. Shaft will rotate freely within Enviropeel.

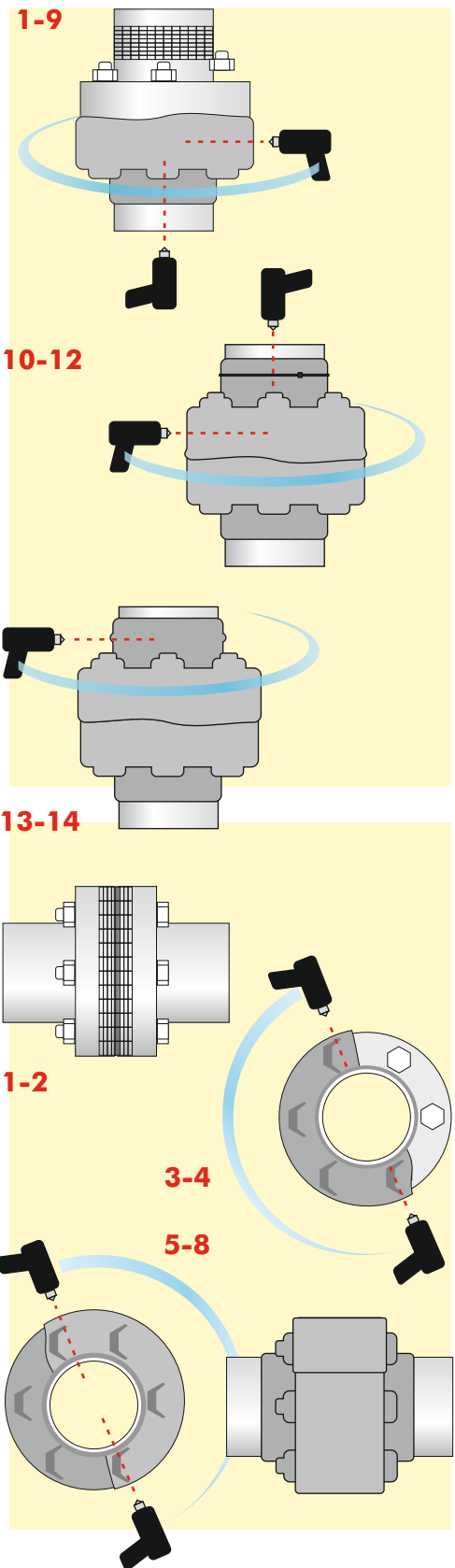
## Applying to Flanges on Vertical Pipes

After preparation the following steps should be followed:

- 1 Install matrix tape round the pipe on upper neck of flange.
- 2 Apply Enviropeel pre-treatment inhibitor into flange gap and on to corroded surfaces.
- 3 Apply first coat to the underside of the flange with the gun at right-angles to the flange.
- 4 Inspect to ensure Enviropeel covers flange, bolts & nuts.
- 5 Trim off excess Enviropeel, checking coating integrity.
- 6 Carefully wipe the first coat with a lint-free cloth before applying second coat.
- 7 Apply second coat to the underside of the flange with gun at right-angles to the flange.
- 8 Trim off excess Enviropeel checking coating integrity.
- 9 Carefully wipe the overlapping area with a lint-free cloth.
- 10 Apply first coat to top section from the upper neck of flange covering the matrix tape.
- 11 Install strap/tie wrap over the first coat above the matrix tape once the first coat is safe to touch.
- 12 Carefully wipe the overlapping area with a lint-free cloth.
- 13 Apply second coat, embedding the strap/tie wrap
- 14 Trim off excess Enviropeel with final coating integrity check.

## Applying to Flanges on Horizontal Pipes

- 1 Install matrix tape around flange gap if necessary.
- 2 Spray/apply Enviropeel pre-treatment inhibitor into flange gap and on corroded surfaces.
- 3 Apply first coat anti-clockwise covering the bolts and nuts on both sides of the flange and along connecting pipes, starting with gun angled at approximately 11 o'clock (looking along pipe), coating down to 5 o'clock - see diagram.
- 4 Trim off excess Enviropeel and check coating integrity.
- 5 Carefully wipe overlapping area with a lint-free cloth.
- 6 Apply remainder of first coat clockwise on both sides of the flanges with the gun at approximately 11 o'clock angle down to 6 o'clock.
- 7 Trim excess Enviropeel and check coating integrity, ensuring Enviropeel covers the flange, bolts and nuts without any holes.
- 8 Carefully wipe the entire surface of the application with a lint-free cloth before applying second coat.
- 9 Repeat steps 3 to 7 for second coat with a final coating integrity check.



**Special Note:** For the Enviropeel System to work effectively, film thickness and continuity during application is of prime importance. The minimum thickness for two coats of Enviropeel after cooling on the substrate should be 160 mil (4mm). However, if the substrate is subject to extreme UV exposure, the thickness should be increased to a minimum of 240-320 mil (6-8mm), as high UV exposure may reduce inhibitor levels on the outer surface of the application. Increasing film thickness guarantees full system integrity and performance.

# Troubleshooting

Fault	Cause	Remedy
E170 too cold	Temperature set too low	Set the temperature to correct setting
	Excessive distance between spray nozzle and substrate	Move nozzle closer to substrate
Insufficient E170 at point of application	Nozzle orifice blocked	Clean/replace nozzle
	Pump Control pressure too low	Increase pump control pressure
E170 is stringing	Excessive distance between spray nozzle and substrate	Move within 6" of surface
	Material is too cold	Increase temperature setting slightly (+5 degrees)
	Cold air is blowing on nozzle	Protect application head from wind
	Ambient temperature too low	Raise ambient temperature
Air in E170	Tank empty or not enough melted E170 material	Fill tank or wait until material is melted. Actuate application head until bubbles are gone
Intermittent spraying	Filter plugged	Purge filter
		Remove filter and clean
E170 jumps or splashes off of substrate	Pump pressure too high	Lower pressure by turning flow control counter-clockwise
	E170 temp too high	Lower system temperature

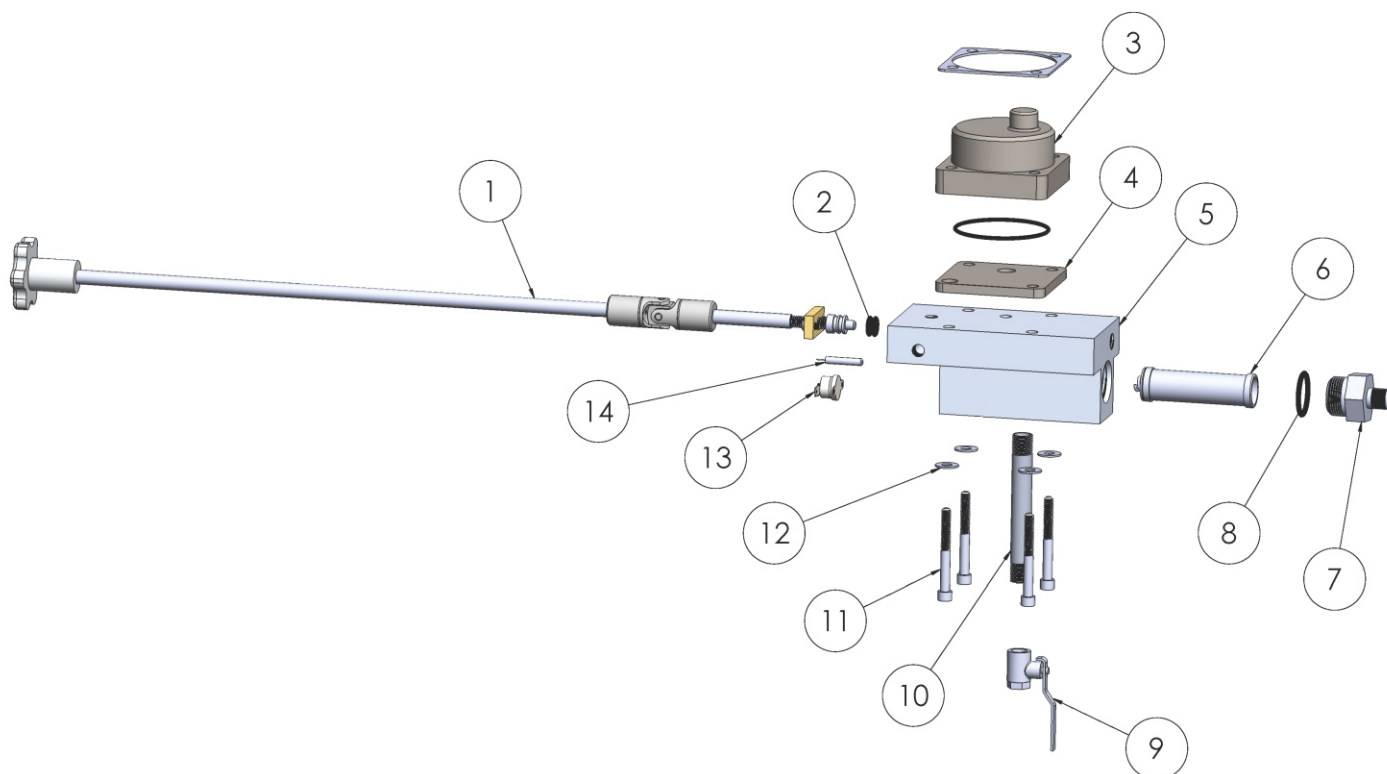


# Troubleshooting

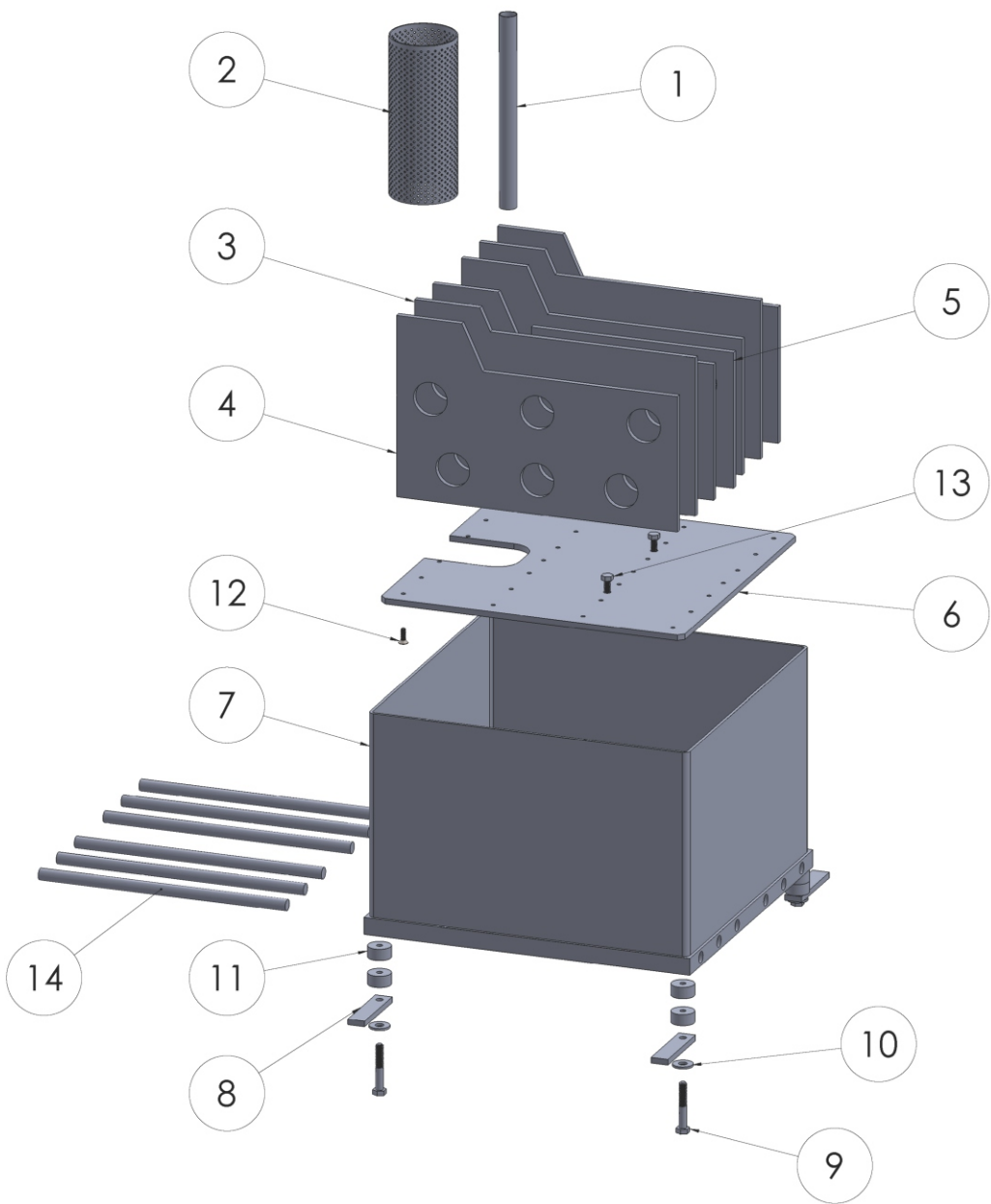
Fault	Cause	Remedy
Pump stopped	Blown Fuse	Check for electrical faults and replace fuse as necessary
	Flow control pressure set too high	Reduce pressure by turning flow control counter clockwise
	Motor over temperature	Turn off unit and allow to cool If fault recurs call manufacturer
	Pump blocked	Remove material in tank & check for blockage at inlet of gear pump
	System temperature too low	Allow more time for temp. to rise
Pump generates insufficient pressure	Flow control blocked	Remove flow control while hot and check for blockage.
	Filter clogged	Remove filter and clean/replace
	Pump defective	Replace pump
E170 cobwebbing	Too much air through nozzle	Turn air regulator off
	Insufficient pump pressure	Increase pump pressure by turning flow control clockwise

# Valve Assembly

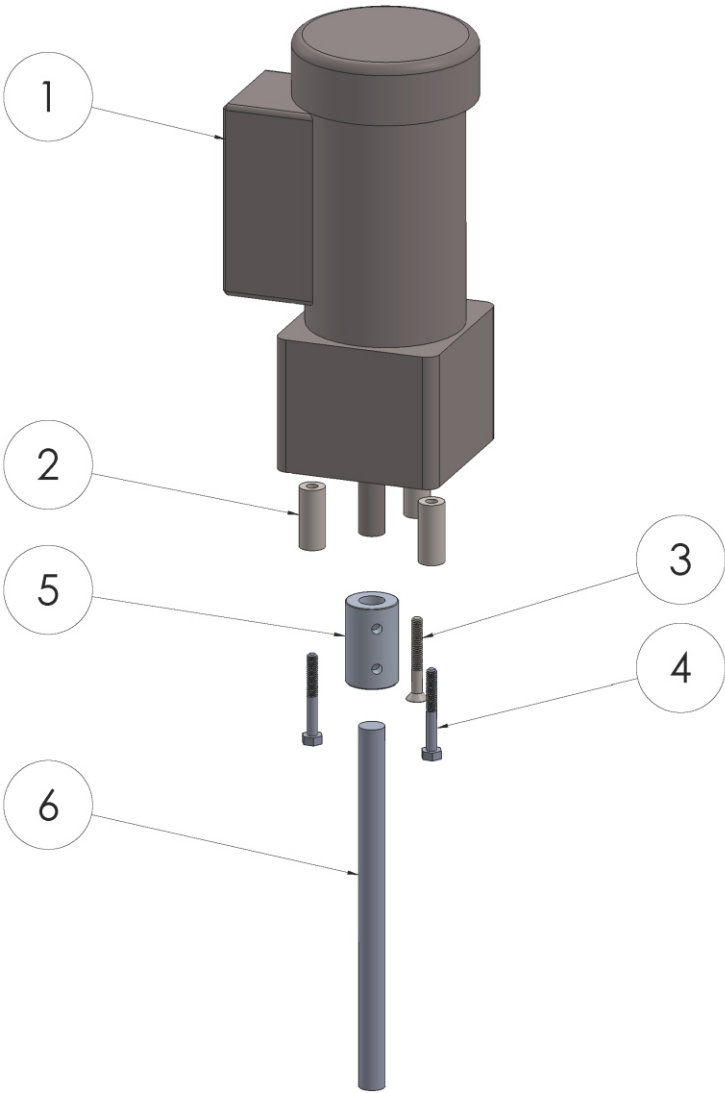
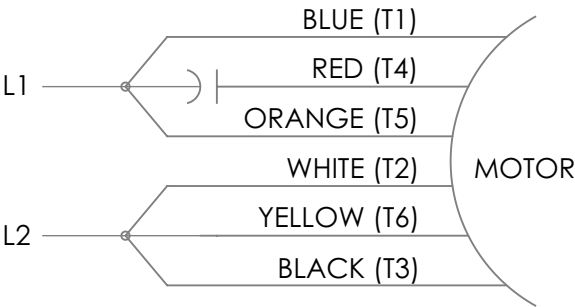
ITEM NO.	PART #	PART NAME	QTY.
1	50399	Flow Knob Assembly	1
2	50307	O-Ring	2
3	50308	Gear Pump	1
4	50309	Spacer - Gear Pump	1
5	50310	Valve Block	1
6	50311	Filter	1
7	50312	NPT Fitting	1
8	50313	O-Ring	1
9	50314	Purge Valve	1
10	50315	Extension - Purge Valve	1
11	50316	Fastener	4
12	50317	Washer	4
13	50318	Over-Temp Switch	1
14	50319	Temperature Sensor	1



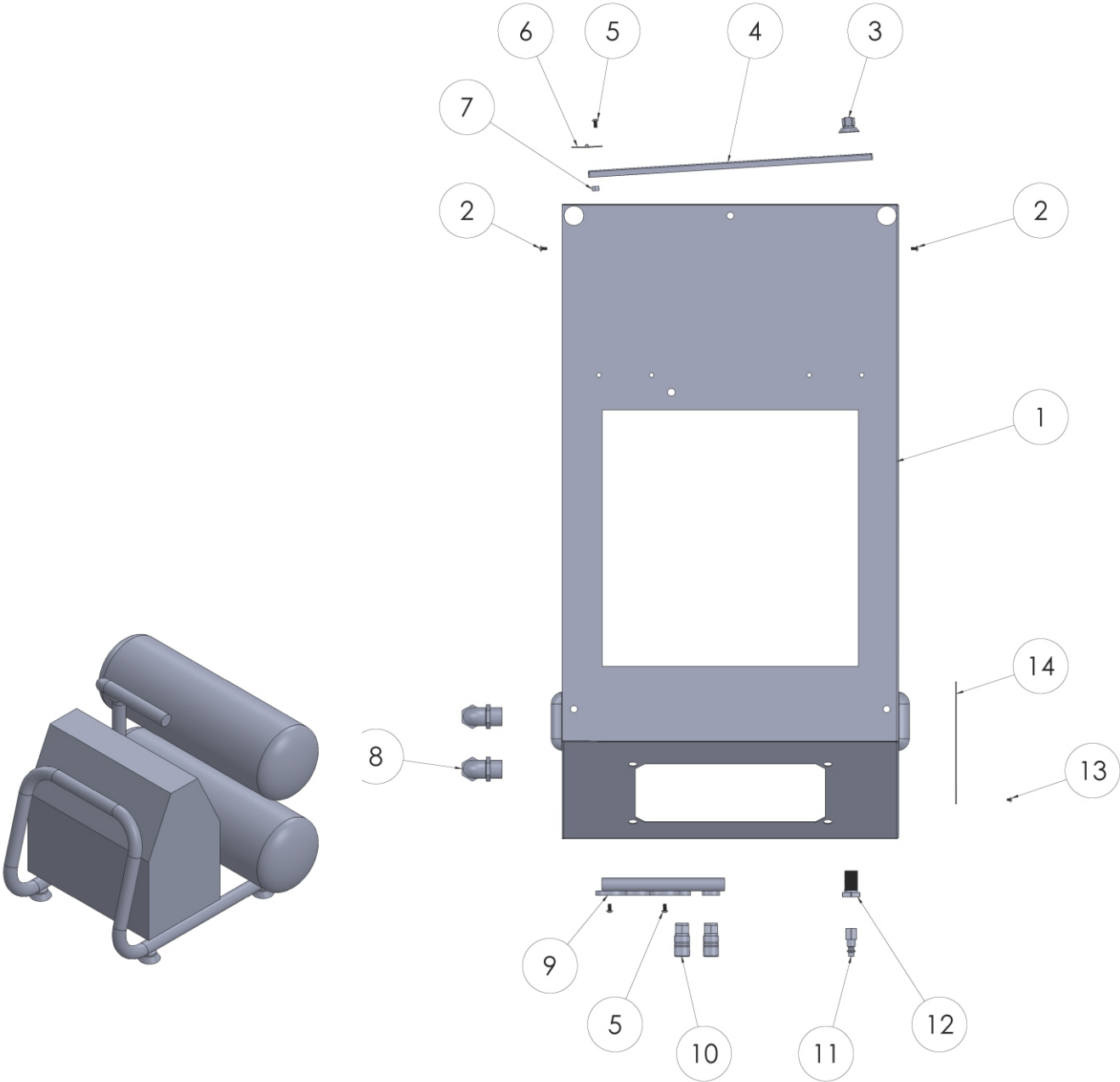
ITEM NO.	PART #	PART NAME	QTY.	ITEM NO.	PART #	PART NAME	QTY.
1	50200	Return Tube	1	8	50207	Mounting Feet	4
2	50201	Filter	1	9	50208	Fastener	4
3	50202	Alum. Fin - Large	2	10	50209	Washer	4
4	50203	Alum. Fin - Small	4	11	50210	Spacer	8
5	50204	Alum. Fin - Middle	1	12	50211	Fastener	27
6	50205	Baseplate	1	13	50212	Fastener	2
7	50206-1	Tank	1	14	50213	Heating Rod	6



ITEM NO.	PART #	PART NAME	QTY.
1	50424	Motor	1
2	50425	Standoff	3
3	50426	1/4-20 x 2.00 FHCS	1
4	50427	1/4-20 x 2.00 HHCS	2
5	50428	Coupling - Drive Shaft	1
6	50429	Drive Shaft	1

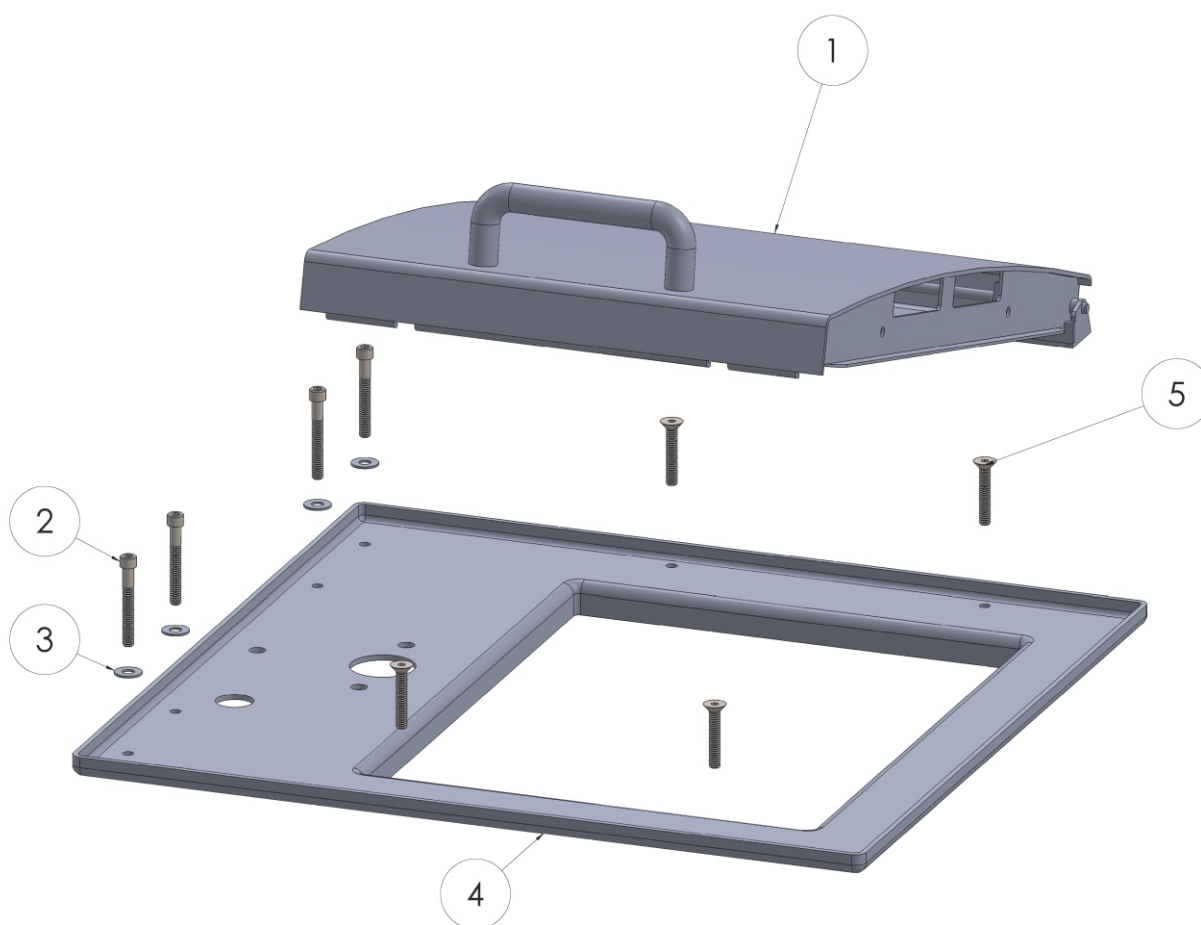


ITEM NO.	PART #	PART NAME	QTY.	ITEM NO.	PART #	PART NAME	QTY.
1	50400	Main Housing	1	8	50407	90 ° Connection	2
2	50401	Fastener (Lower Edge)	4	9	50408	Manifold	1
3	50402	Latch - Rear Door	1	10	50409	Quick Disconnect - Female	2
4	50403	Rear Door	1	11	50410	Quick Disconnect - Male	1
5	50404	Fastener (Hinge)	14	12	50411	Bulkhead Coupling	1
6	50405	Hinge	2	13	50412	Fastener (Side Panel)	10
7	50406	Nut (Hinge)	6	14	50413	Side Panel	1

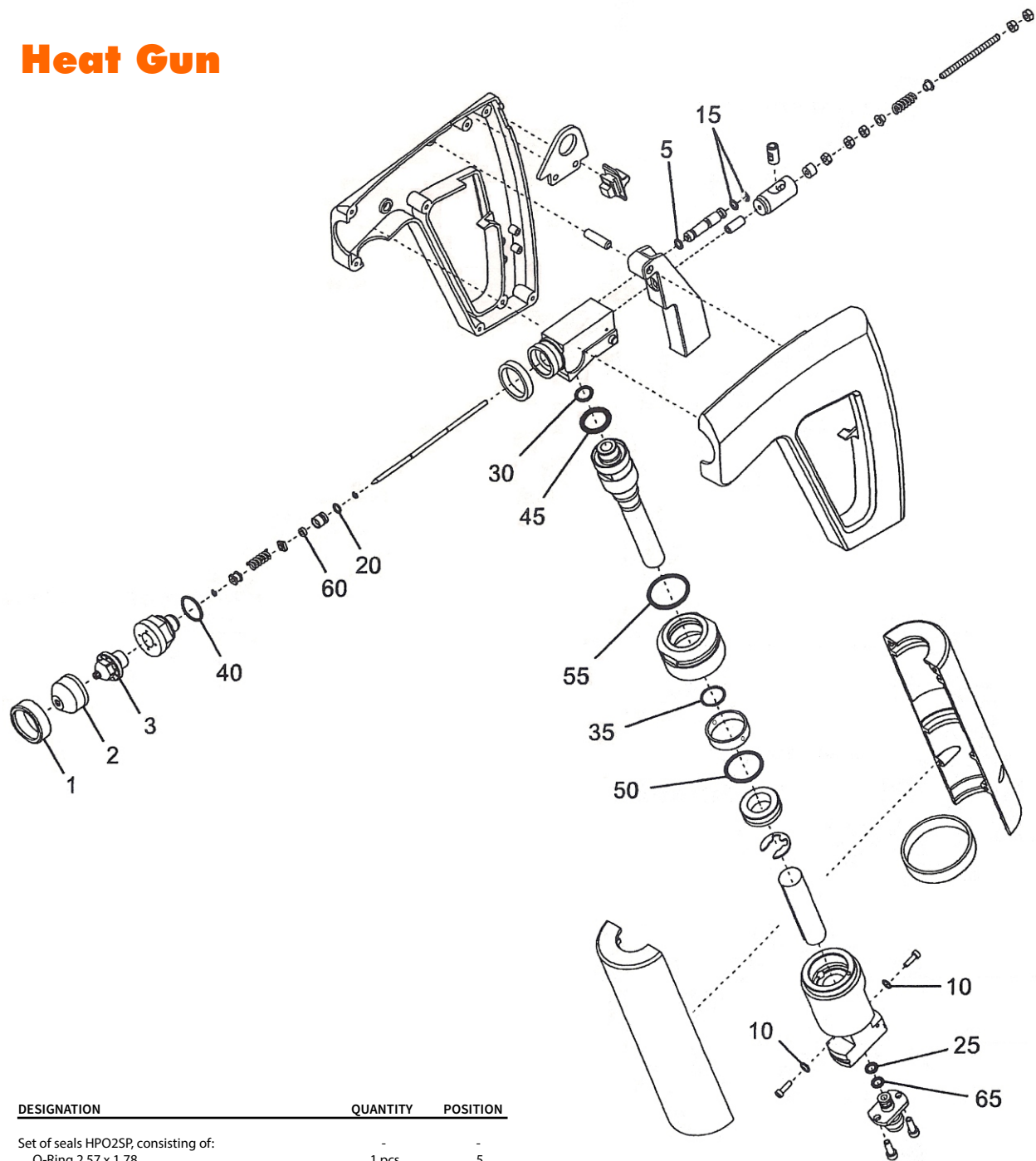


## Lid and Tray

ITEM NO.	PART #	PART NAME	QTY.
1	50499	Lid Assembly	1
2	50417	Fastener	4
3	50317	Washer	4
4	50419	Tray	1
5	50418	Fastener	4



Heat Gun



DESIGNATION	QUANTITY	POSITION
Set of seals HPO2SP, consisting of:	-	-
O-Ring 2.57 x 1.78	1 pcs	5
O-Ring 2.9 x 1.78	2 pcs	10
O-Ring 3.69 x 1.78	2 pce	15
O-Ring 4.47 x 1.78	1 pce	20
O-Ring 5.28 x 1.78	1 pce	25
O-Ring 9.25 x 1.78	1 pce	30
O-Ring 14 x 1.78	1 pce	35
O-Ring 17 x 1.5	1 pce	40
O-Ring 20.35 x 1.78	1 pce	45
O-Ring 24 x 2	1 pce	50
O-Ring 25.07 x 2.62	1 pce	55
Rod seal HPO2 d=3/5.9	1 pce	60
Back-up ring 9 x 1.1 x 1.5	1 pce	65

NOZZLE KIT

- Required hand tools: Spanner 13mm, spanner 22mm  
Conditions: Hand applicator heated to approx. 100°C and system pressure drained.
- Unscrew the spigot ring (1) and remove the air cap (2).
  - Lock the nozzle connection (base) in position with the fork spanner of 22mm and the old swirl nozzle (3) using the spanner 13mm.
  - Screw in the new swirl nozzle by hand and let it heat up during 2 minutes.
  - Tighten the swirl nozzle **without applying any force**.
  - Put the air cap in place and screw on the spigot ring **without applying any force**.

Title: <b>HPO2SP SEALS AND NOZZLE KIT FOR STANDARD HOSE</b>					A&E Systems Sdn Bhd No.26, Jalan Pendaftaran U1/54, Seksyen U1, 40150 Shah alam, Selangor Darul Ehsan, Malaysia.	Design by SIMON	Checked by SIMON	Approved by SIMON	Date 12/06/2008
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RevNo	Revision Note	Date	Drawn	Checked					
					Drawing Number A&E-092-08		Sheet A3	Scale NTC	



