

EPOT™ Series

Intelligent thinking. Clever design

Datasheet

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Introduction

Imperial Thermal Engineering's Epot series is a quantum leap forward in the preparation of modern bituminous rubber compounds (hot-melt). This equipment has been developed in order to eradicate the use of propane gas on construction sites.

The Epot series has been developed with production in mind with fast heat up and melting times and powered by clean three phase electricity. Using an electrically operated piece of equipment as a primary heat source will avoid the safety and quality control issues arising from the use of gas fired pots.

On today's modern construction sites gas-fired equipment is becoming unacceptable and deemed to be a significant risk.

Current risks associated with gas fired pots include:

- Presence of naked flames and risks of flash fires
- Compound exceeding maximum manufacturers specified temperatures
- Poor regulation of heat often exceeds the flash-point of the compound
- Significant safety hazards such as splash back to operators when loading
- Very high external temperature of the boiler body creating burn risks
- Site specific controls associated with naked flames and hot works
- Hot-works permits required reducing the working day by at least one hour
- Large CO2 footprint from inefficient LPG fired boilers
- Site space issues through associated storage requirements for gas and gas pots
- Logistic issues relating to deliveries and on-site LPG cylinder movements

The Epot series has been designed and developed to address all of these issues offering unrivalled safety.



Product description

Designed and built in the UK, the Epot range is available in 100ltr, 300ltrs and 500ltr capacities. Using a 415v, 3-phase 32amp supply with a simple 'plug and play' logic system, the equipment heats the compound quickly and efficiently to the desired temperature. The control software maintains the pre-determined temperature throughout the operation using accurate temperature controls maintained through RTD sensor loops. The control systems ensures the equipment operates at the temperature set by the manufacturer and this eliminates the risk of 'flash' and vapour ignition fires. The burn risk to operatives is almost eradicated with the introduction of 'cool side' technology and the primary melting/ loading chamber at a comfortable waist height. Open the lightweight lid and place the compound blocks onto the 'super-heated' melting grid. Close the lid and the blocks will simply melt away. Within minutes, once melted, reload and repeat the process.

The Epot series has been developed with the option of incorporating an agitator system. Once the temperature sensors permit, the agitation process will commence automatically, mixing and maintaining the integrity of the compound.

The Epot has a self-clean, non-stick lining which was developed for the aerospace industry. This advance in Epot design now prevents the build-up of carbon which consequently slows the performance of the pot. All internal surfaces are coated with the non-stick finish allowing the compound to melt and remain fluid inside the main storage chamber.

The Epot series is highly manoeuvrable on its 4 castors which includes a braked pair.

Key/ Safety features

- Electrically heated unit for melting bitumen based rubber compounds used in structural roofing & waterproofing installations
- Computer controlled to ensure the compound is heated at a constant and even temperature, to the manufacturer's specification, thereby delivering a quality assured product
- Clear red LED indicator displaying the current compound temperature aiding the operator as to when the compound is ideal for use
- Electrical technology eliminates the risk of flash and vapour ignition fires
- Get working quickly: Unique two-stage design delivers compound from solid block to working

- temperature in an average time of 45 mins
- Waist height primary melting chamber eliminating the risk of 'splash back' during charging
- Bunded outer tank- no need for a large (whole machine) drip tray
- Zero fire risk - no need for a 'pot man' to stand watch during operation
- Cool sides to all external surfaces of the equipment using super-efficient insulation
- Silent running
- Single cable connection using steel braided reinforced cables
- Optional longer cables available
- Lockable pouring spout
- Touch screen control pad
- Pre-set temperature control that is factory set
- Safety warning neon indicator lamps during use to warn others that the equipment is in use
- Hibernation feature to reduce the temperature of the pot for long periods when compound is not required i.e. Overnight mode
- All aluminium vessel non-stick construction incorporating a steel frame chassis with robust braked castors
- Even when empty the Epot series cannot overheat
- Available with or without agitator



Control panel

User Friendly

The Epot series is simple to operate and manage, requires no specialist knowledge and very little training. It is not possible to tamper with the factory pre-set temperature setting thereby removing the possibility of over-heating the compound. A constant temperature display clearly identifies the

temperature of the compound inside the pot.

Digital Screen display

The digital screen display provides the manufacturer's visiting QA Engineer with a valuable insight into the performance of the equipment. Provided with a unique access code the Engineer can interrogate the equipment and view the historic 'run periods'. He will be able to see the temperature of the machine during use confirming the machine is heating the compound to the pre-set parameters, underpinning the Quality Assurance process by the manufacturer.

Plug and play

Simply plug the Epot into the site mains supply, unlock the screen and press the ON button. The bright LED readout displays temperature and status.



Cables, power requirements & consumption

415V, 3-phase, 32Amp or 63Amp

Phase lines 1-3 + neutral + earth required (5 pin plug)

Epot has a 5 pole 32A or 63A male connector on the rear panel.

Note: Epot 500 is available in 32Amp or 63Amp

Power consumption:

Epot 100/ 300/ 500 - 32KVA (24 KW)

Epot 500 63A - 38KVA (60KW)

All Epots are supplied with a 20m cable as standard. To reach longer distances to power sources a range of extension cables at 30m and 40m is available.

Note: For use on site without a permanent fixed supply we recommend using a 40KVA site generator with a 32amp five pin socket fitting for the Epot 100/ 300 (Red & Grey plug. See picture). For the Epot 500 63A we recommend using a 60KVA site generator with a 63A five pin socket.

If the generator has a 64amp plug an adapter is available to fit the 32amp cable plug.



w Specification and servicing

Manoeuvring

- Solid rubber wheels mounted on a strong axle with castors to the front allow the EPot to be manoeuvred easily by two persons.

Lifting

- A lifting bar on Epot 300/ 500 models folds away when not required forming part of the forward 'D' handle. The bar is certified for lifting, even when full, by site cranes, fork lifts and other similar lifting equipment
- All Epot models are delivered with certified lifting certificates valid for 1 year from date of purchase

Dimensions

- Height: Epot 300/ 500 – 1400mm
- Height: Epot 300 – 1620mm (with lifting bail raised)
- Height: Epot 100 – 1400mm
- Width: Epot 300/ 500 - 980mm
- Width: Epot 100 - 660mm
- Length: Epot 100 – 1730mm
- Length: Epot 300 – 1970mm
- Length: Epot 500 – 2500mm

Unloaded weight

- Epot 100 – 300Kg
- Epot 300 – 375Kg
- Epot 500 – 850Kg

Spout

- 50mm throat diameter with an all steel knife action 'Banjo style' lever.
- 420mm ground clearance to the bottom of the spout.

Cleaning and care

- As with any electrical equipment regular cleaning should take place in order to maintain the efficiency of the unit
- It is advised that the machine is emptied every two days to prevent the build-up of debris within the pot. The melting plates should be cleaned of all material using a wooden spatula gently prising any contaminants and plastic residue from the surface when at temperature
- Remove all spilt compound from around the lid area when at temperature using a wooden spatula ensuring the lid cannot get stuck when cold
- Do not use metal tools to clean as this will damage the non-stick lining
- Use Parrafin on a soft cloth to remove any bitumen residue
- Only use natural solvents

Onsite training

- Full training will be given when the machine is delivered to the customer

Servicing & warranty

- The Epot series is covered by a 1-year manufacturer's warranty (conditions apply)
- The warranty remains valid for that period on the condition that service conditions are adhered to
- Servicing/electrical testing is required once every six months or 1000 hours whichever comes sooner. Care plan available on request

Warning - Epots are only for use with bitumen based compounds. These models will not be suitable for use with asphalt or tarmac.

EPOTS ARE INCOMPATIBLE WITH HYDROTECH



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