

# ETORCH

Intelligent thinking. Clever design

## Datasheet

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### Introduction

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

The Etorch is the first all electric roofing torch. It has been developed with safety, production and the environment in mind and is powered by clean three phase electricity.

On today's modern construction sites gas-fired equipment is becoming unacceptable, and is recognised as a significant risk. 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 LPG gas torches.

Current risks associated with gas torches include:

- Presence of naked flames in confined and semi-confined spaces
- Use of a torch on or adjacent to adjoining buildings where unknown material maybe present
- When used to dry plywood or other combustible materials
- Presence of naked flames in the proximity of spirit based primers
- Materials exceeding maximum manufacturers specified temperatures
- Poor regulation of heat often exceeding the flash-point of the material.
- Significant safety hazards such as direct burns to operators during use
- Site specific controls associated with naked flames and hot works.
- Hot-works permits required reducing the working day by at least one hour.
- Significant CO2 footprint from use of gas torches.
- Inherent dangers of unattended equipment
- Site space issues through associated storage requirements for gas bottles.

The Etorch has been designed and developed to address all of these issues by offering performance with unrivalled safety.

### Etorch

The Etorch has been developed with ergonomics in mind to deliver total flexibility and functionality for the operative, combined with exceptional performance when drying up and activating self adhesive membranes.

The Etorch has a full carbon fibre body and carbon fibre air blade, a durable, flexible, kink free umbilical cord, 3 x 240v plug sockets and our new patented innovative vane axial fan. The weight of the Etorch is less than 5kg. Performance, comfort, and agility are key features of the new model.

### Product description

The Etorch is a Hot Air torch that replaces the conventional gas torch in the drying & activation of self-adhesive bituminous membranes in field sheet and upstand applications. It completes the drying process effectively and efficiently on a variety of decks and substrates such as plywood, screed, concrete, slabs and asphalt. In addition the Etorch can also melt snow and ice on concrete, pathways and other surfaces already referred to above.

Designed, engineered and built in the UK, the Etorch is computer controlled, using a simple plug and play logic system making it easy to use. Powered by 415v, 3-phase 32amp supply the equipment heats the air quickly and efficiently from ambient to temperatures up to 400C°. The control software maintains the pre-determined temperature throughout the operation using mirroring thermocouple censoring. Safety is a paramount factor, which the machine is protected by a 16mA trip.

The control systems ensure the equipment operates at the selected temperature and with optimum power. The burn risk to operatives is all but eliminated with the equipment shrouded providing cool surfaces. The fire risk at point of use or to adjacent buildings is all but eliminated



due to super heated dry air and not a flame. The focused air stream is directed onto the work face using a unique nozzle.

The Etorch is a self contained unit comprising a torch, air blade, control panel and cable, all mounted on an easy to move trolley.

### Key/ Safety features

- Light weight electrically powered torch replacing the conventional gas equivalent
- Drying and sheet activation - designed for drying up a variety of substrates, activating self adhesive membranes by providing 966m3/hr. @ 108 KPH @ 300°C
- Suitable and safe for both internal and external building applications
- Highly manoeuvrable
- Designed to be arm held, perfectly balanced for pitch, roll and radial movement
- Unique design, with 'cool side' surfaces.
- Joystick controller incorporating speed and primary function switches
- Simple to use
- Computer controlled to ensure the air is heated at a constant and even temperature at a consistent rate
- Eliminates the risk of flash and vapour ignition fires
- Pre-set temperature range control that is factory set



## Control panel

### User friendly

The Etorch is simple to operate, requires no specialist knowledge and very little training. It is not possible for operatives to tamper with the factory pre-set temperatures.

### Service warning light

A service warning light on the control panel will indicate when the unit requires servicing.

### Plug and play

Simply plug the Etorch into a mains or generator supply and switch the isolator to ON. Once the white LED lamp illuminates select either the dry or detail mode by switching to the appropriate function. Once selected squeeze the trigger and the torch will begin running.

## Cables, power requirements & consumption

415V, 3-phase, 32Amp. (UK and Europe)  
480V, 3-phase, 32Amp. (Canada and USA)  
Live & neutral required (5 pin plug).  
Etorch has a 5 pole 32A male connector on the control panel.

Power consumption: 28KVA (22 KW) only during operation.

All Etorches are connected to the control box by an 8m umbilical power cable. A 20m extension cable is supplied to allow the control panel to be connected to the main power supply.

To reach longer distances to power sources further extension cables at 20m, 30m and 40m are available to purchase.

Note: For use on site without a permanent fixed supply we recommend using a 30KVA site generator with a 32amp five pin plug fitting (Red & Grey plug. See picture below). If the generator has a 64amp plug an adapter is available to purchase to fit the 32amp cable plug.



## Specification and servicing

### Maneuvering

- The Etorch is mounted on a trolley to allow for ease of movement around site

### Lifting

- The Etorch can easily be maneuvered about site with ease on its self-contained trolley stand and weighs no more than 18kg

### Overall size of Etorch

- Length 800mm
- Width at widest point 230mm
- Cable length 8m (Torch to control panel)

### Trolley dimension

- Overall height 1320mm
- Width 600mm
- Depth 500mm

### Weight

- Total overall weight inclusive of trolley - 18 kg
- Etorch weight - 4.5kg

### Cleaning and care

- Always disconnect power before cleaning
- As with any electrical equipment regular cleaning should take place in order to maintain the unit
- Wipe down with a damp cloth. As this is an electrical piece of equipment do not spray with water
- Use paraffin on a soft cloth to remove any bitumen residue
- Use only natural solvents
- It is advised that the air blade is cleaned periodically to avoid build-up of bitumen which may affect the performance

### On-site training

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

### Servicing & warranty

- The Etorch 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 is required when indicated by the service light button

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Tel no 01376 330 582  
Fax no 01376 347 875  
[www.imperialthermal.co.uk](http://www.imperialthermal.co.uk)

Head Office  
Bridge Hall Barn, Hollies Road,  
Bradwell, Braintree, Essex,  
CM77 8DZ, UK

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