



**LANEMARK**  
INTERNATIONAL

# product finishing & pre-treatment

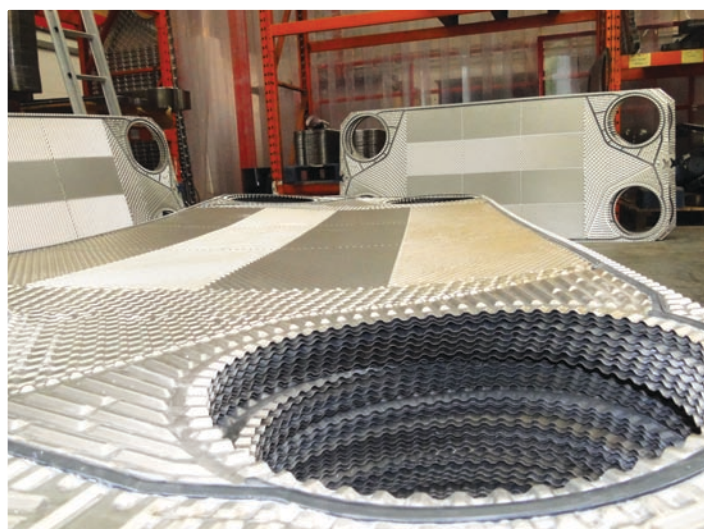
## Accurate Process Heating helps to Maximise Quality

**Across manufacturing and processing the key watchword that underpins all activity is 'quality'. In an increasingly competitive environment, the ability to achieve the highest standards of production – consistently and reliably – can impact directly on sales, reputation and thus profitability and business success.**

In many areas of engineering and manufacturing, not least product finishing and pre-treatment, the delivery of reliable, accurate and controllable process heat is fundamental to this objective – a field within which Lanemark International Ltd has achieved growing success. At the heart of this track record are the company's TX process tank heating and FD process air heating burner systems, both of which combine the benefits of gas with 'point-of-use' control.

Available with heat inputs ranging from 45 kW to 730 kW, the TX tank heating burner systems – and smaller TRX packaged systems – comprise an externally mounted burner firing through the wall of a process tank where the products of combustion are induced through a small diameter immersion tube heat exchanger. Typical efficiency in excess of 80% is achieved - markedly greater than comparable centralised alternatives such as steam, high pressure hot water or thermal oil systems.

Following dip or spray pre-treatment processing, efficient product drying is required. Lanemark FD packaged



Products undergoing finishing and pre-treatment processes – such as those seen here at PJ Heat Exchangers – gain from Lanemark process burner technology

burner systems provide highly controllable heating for process drying applications with even heat distribution and excellent turndown capabilities key characteristics.

Typical pre-treatment processes, ranging from caustic degreasing and hot water rinsing to zinc, iron or manganese phosphate applications, can all gain from the Lanemark designs and experience, in both a new-build and retrofit context.

With a choice of burner sizes and configurations available across the range to match precise installation requirements, Lanemark TX process tank heating and FD process air heating burner systems offer key advantages that will be recognised by everybody involved in the product finishing and pre-treatment industry –

- High levels of heating efficiency
- Excellent control characteristics
- Consistent, reliable performance
- Advantages of point-of-use operation
- Cost benefits arising from the use of gas as an energy source
- Lanemark BurnerCare back-up and support
- Proven track record through a long list of installations

## Performance that goes on and on and on ...



**LANEMARK**  
BurnerCare

- In every industry where unplanned downtime can be extremely damaging and expensive, the support and structure of the Lanemark BurnerCare package is widely regarded as a key element of the Lanemark service.
- Lanemark BurnerCare is designed to ensure ongoing performance and peace of mind for every product finishing and pre-treatment customer.
- Burner system commissioning, planned maintenance schedule options, comprehensive on-line support and the supply of spare parts are all key elements of the Lanemark BurnerCare service.



## PJ Heat Exchangers

**Two process tank heating systems, each featuring a TX25EN burner installation, are central to the success now being enjoyed by one of the UK's leading refurbishers of plate heat exchangers. Holding up to 5,850 litres of caustic and acid solutions, the Lanemark design enables operating temperatures of between 70 and 80°C to be reached in just 30 minutes.**

The PJ Heat Exchangers facility in Barnsley includes the removal of the inevitable scaling that accumulates over time on the surface of heat exchanger panels – used in applications as diverse as brewing and offshore exploration. The plates, fabricated in a range of materials from stainless steel to titanium, are processed through a three tank cleaning process – two of which benefit from a Lanemark heating system. Here, the high levels of heating accuracy and control of the Lanemark burners are crucial with the anticipated 80% efficiency figure, calculated using the company's TxCalc computer modelling software, actually showing higher results.



With a 24-hour/7-day operation, which includes a 24-hour emergency service where required, the need for efficient and reliable process heating systems at PJ Heat Exchangers requires little emphasis. This is a fundamental objective that is now gaining significantly from the use of the Lanemark TX tank heating burner installations.



## Cooper Lighting and Safety

**Process heating efficiency and accurate temperature control are key benefits of a new Lanemark installation at Cooper Lighting and Safety Ltd in Doncaster – one of the UK's leading manufacturers of lighting and safety systems. Installed by TD Finishing Ltd, the facility is helping the company to fulfil growing demand for its industrial and commercial lighting and fire alarm systems.**



Dedicated to the powder coating of a range of steel and aluminium panels and components, the installation features both Lanemark TX tank heating and FD process air burner equipment. Components initially enter a four-stage, pre-treatment facility where two Lanemark TX60 burner systems heat a phosphate tank and a demineralised water rinse tank underneath two spray chambers. The dry off oven, which precedes automatic powder coating, then utilises Lanemark FD10-C (GA) burner systems, as does the final curing oven, before removal of the components from the conveyor system for onward assembly.

The installation is a good example of Lanemark tank and process air burner systems working in tandem and also demonstrates the economic benefits of gas compared with alternatives such as electricity. Importantly, a more uniform heat distribution is achieved than would be possible, for example, with radiant heating methods.

The new facility is a clear reflection of the commitment at Cooper Lighting and Safety Ltd to utilising the most up-to-date and advanced manufacturing plant available. Running at some six metres per minute – markedly faster than the line it replaces – the installation is making a major contribution to the company's continued success in the markets it serves.