



Comma Oil & Chemicals Limited Gravesend, Kent

Induction Heating



SUMMARY

Comma Oil & Chemicals replaced their steam heated oven with induction drum heaters. They achieved tighter temperature control, faster throughputs, and energy costs were reduced by £6,000 per annum. Project payback was 8 months.

THE COMPANY

Comma Oil blend and manufacture a wide range of oils and lubricants. They also produce a variety of car care products ranging from polishes and cleaners to anti-freeze.

ORIGINAL PROCESS

Chemical additives, which are delivered and stored in 45 gallon drums, were loaded into a steam heated oven and left for up to 8 hours to achieve the correct temperature and viscosity prior to the difficult and often complex blending process. The drums had to be manhandled into the oven which was an unpleasant task, since the environment was hot noisy and dirty.

The steam oven could accommodate 8 drums,





but this was rarely possible since the drums often required heating to different temperatures which meant the oven was frequently under-utilised.

The slow turnaround meant that a large number of drums were kept in circulation which required valuable storage space and additional handling.

SEEBOARD TECHNICAL SERVICES

The production limitations were discussed during a visit by Seeboard's Industrial Sales Engineer, who suggested that induction drum heaters could solve the problem.

Following successful field trails arranged with the Industrial Energy Efficiency Centre, an initial order for 3 induction drum heaters was placed.

The heaters consist of a large induction coil encased in a glass reinforced polyester cylinder, which is placed over the drum. An AC mains supply induces an alternating current in the drum itself, generating heat uniformly through the drum surface.

INDUCTION DRUM HEATERS

The induction drum heaters have enabled blending throughput to increase from 5 to 20 drums per day – an increase of 300%. Annual energy costs have reduced from £7,200 to £1,200, in spite of this increase in production.

The heaters take as little as 2 hours to achieve consistent, even melts with no product degradation. The much greater control of temperature and viscosity produces a higher quality product.

Project payback was 8 months, achieved by the precision power of electroheat placing energy where it's wanted, when it's wanted.



PROJECT DATA

The Company: Comma Oil & Chemicals Limited
Lower Grange Road
Gravesend
Kent DA12 2QX

Equipment: 3 Induction drum heaters

Supplier: L.M.K. Thermosafe

Benefits:

- Improved working environment
- Increased production capacity
- Reduced energy costs
- Reduced drum handling
- Improved product quality
- Improved production control

Capital Cost: £4,500

Payback: 8 months

SEEBOARD TECHNICAL SUPPORT SERVICES

■ Tariff Advice and Energy Management

■ Energy Efficiency

■ Process Information & Trials

■ Technology Transfer

■ Environmental Engineering

Available through your local Industrial Sales Engineer