



Caring for our environment

Bodycote is totally committed to achieving environmental best practice throughout our business activities, ensuring that these meet relevant laws and regulations, that they are acceptable to the community at large, and that their environmental impact is reduced to a minimum. The company recognises that the pursuit of economic growth and a healthy environment are closely linked.

Ever at the forefront of technology, Bodycote was one of the first thermal processing companies to use microprocessor controls to tightly control furnace atmosphere and emissions and introduced its first load-forecasting systems over 20 years ago to reduce peak energy demand and minimise waste.

A proactive approach to improving energy efficiency means that Bodycote has implemented a variety of systems to reduce water and gas consumption and re-use energy. This continuing focus on lessening our impact on the environment has resulted in Bodycote advancing toward ISO 14001 environmental accreditation at all its facilities, with over three quarters of the Group having already achieved this standard.

At every stage where Bodycote is involved in the manufacturing cycle, our operations aim to lessen the overall impact on the environment. The key to Bodycote's positive contribution lies in efficiency; as an aggregator of specialised engineering services, Bodycote reduces the carbon footprint of our customers' activities by increasing the lifespan of their products and using modern, energy efficient equipment.

Without Bodycote, companies would be using older technology and running their equipment at reduced capacity, both of which are a drain on energy and financial resources. Working with Bodycote enables customers to more easily commit to carbon reduction initiatives. In many geographic jurisdictions this can lead to additional value generation as carbon reduction legislation is brought into force.

How can energy intensive thermal processing be environmentally friendly?

When you first consider the science of thermal processing from an environmental point of view, you may ask the question, 'How can such an energy intensive process help the environment?'

However, if we consider a world without heat treatments, HIP or coatings the advantages become immediately apparent. Take an average car, for example - whether diesel, petrol, electric or gas, all need parts that are heat treated, HIPed and coated. For the wheels to turn bearings are needed, yet few people realise that it is thanks to heat treatment that the humble wheel bearing lasts the lifetime (and beyond) of the car. Certainly, better design and improved lubricants assist with this extended life, but without heat treatment a wheel bearing would be lucky to last a week. The same applies to gearboxes, final drives, engines and, in fact, all the moving parts of the vehicle.

But it doesn't end there. Modern thermal processing techniques have allowed design engineers and manufacturers to use much lighter materials, such as aluminium, and have significantly prolonged component lifetimes. By treating the aluminium used for castings and suspension components, the weight of the vehicle is reduced, which in turn leads to reduced fuel consumption and improved efficiency. Without thermal processing, the average car would weigh substantially more and require frequent replacement of parts due to wear resulting in more mining, more transport, more machining, more waste - in short, a massive environmental impact.

So, whilst thermal processing is an energy intensive business, it is a vital part of the manufacturing chain and its use saves the energy it consumes many times over. The alternative would require the use of energy on such a scale that many of the things that we consider an essential part of modern day life would be economically unviable.



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