Nitrotec®

Making steel wear and corrosion resistant

- High wear resistance
- High surface hardness
- Improved corrosion resistance
- Reduction of the friction coefficient
- Improved fatigue strength
- Aesthetic attractive anthracite / black appearance
- Cost reduction on material possible
- Good dimensional and shape accuracy
Nitrotec

Making steel wear and corrosion resistant

**Nitrotec®**

Nitrotec is a worldwide trademarked Surface Engineering Process for the treatment of steels and cast irons carried out in the temperature range of 550 – 740°C using a gaseous nitrogen bearing atmosphere.

The treatments develop iron nitride surface compound layers between 5 and 50 um thick, supported by a nitrogen rich diffusion zone in the substrate.

**Beneficial Properties:**

**Wear Resistance**

The high surface hardness of the compound layer, and the presence of surface micro porosity, capable of retaining lubricant, produce an excellent wear resistance surface.

**Corrosion Resistance**

Nitrotec combined with an organic sealant retained in the micro porous layer, imparts corrosion resistance superior to that of electro plated components, and comparable to that of medium grades of stainless steels. A combination of Nitrotec finishes with a range of organic sealants give salt corrosion resistance of up to 400 hours.

**Strengthening**

When non alloyed steels are rapidly cooled after Nitrotec treatment, strengthening of thin sections occurs. This results in an increase in both the yield strength of the base material and its fatigue strength. Weight saving is possible by reducing the section size.

**Suitable Materials for Nitrotec® treatment:**

Low carbon steels, low alloy steels and cast irons.

**Not suitable:**

Stainless steels and high chromium steels.

---

**Operating from dedicated facilities across the UK:**

Birmingham, Blackburn, Cheltenham, Letchworth, Luton, Telford.

**Visit our website for further information:** [www.hauckht.co.uk](http://www.hauckht.co.uk)

For technical enquiries, contact one of our specialists:

0121 322 2280 or info.birmingham@hauckht.com