

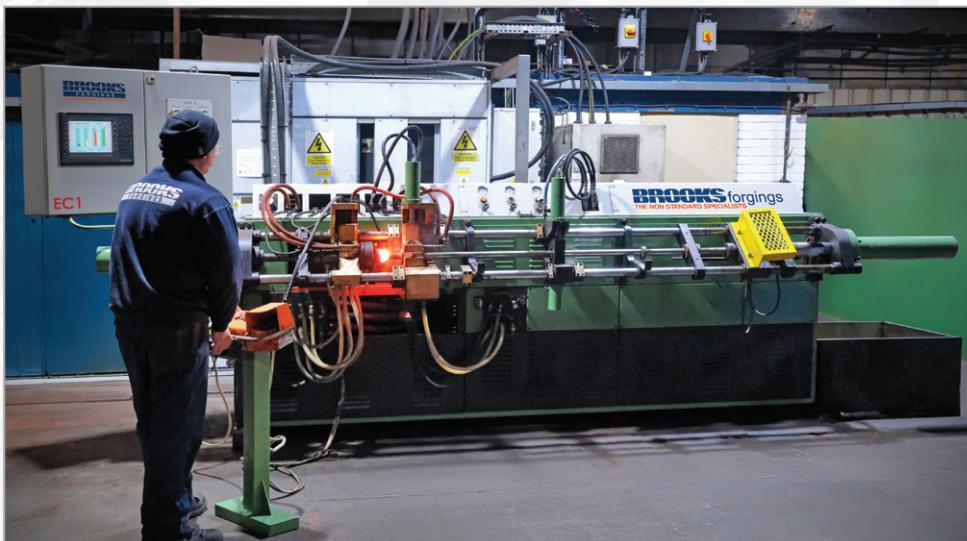


NEWS STORY

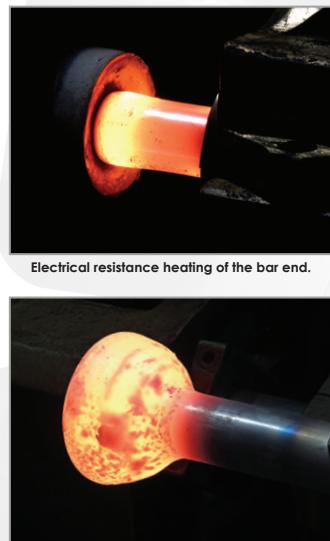
## ELECTRICAL UPSET FORGING MACHINE INSTALLED EXPANDING CAPABILITY

**Brooks Forgings Ltd has enhanced its manufacturing capabilities by acquiring an electrical upset forging machine, which significantly increases our forging capacity.**

This machine was obtained from the Tinsley Bridge Group, the last of their remaining upset forging capabilities. It was primarily used for producing torsion and anti-roll bars, areas in which Brooks Forgings is already a well-known market leader in UK manufacturing.



The fully refurbished electrical upset forging machine is now fully commissioned and operational at our Lye, Stourbridge site.



Electrical resistance heating of the bar end.

Final upset forged example.

Electrical upset forging is a process that combines electrical resistance heating and hydraulic pressure to generate a considerable amount of material from a single heat, typically at the end of a relatively small diameter bar. The starting raw material can be up to 60mm in diameter and may include metals with exceptional electrical conductivity, such as steel, stainless steel, and exotic materials.

This process requires less extensive tooling, and the setup time for production is significantly reduced, leading to lower production costs. Additionally, the carbon footprint per component is significantly reduced, as only the necessary amount of energy is utilised, leveraging our solar power reserves. This is in contrast to the continuous oil or gas-heated furnaces used in conventional upset forging methods.

The machine features a fully integrated computer system that allows our operators to store and recall specific forging parameters, creating a library for both custom components and standard forms based on material type, length, and diameter. This provides full repeatability, enabling less experienced operators to use the machine with minimal training.



Electrical resistance heating and hydraulic pressure is used to gather material from a single heat.

For larger volume projects, we are confident in our ability to integrate robotics, making the process fully automated with minimal operator input. This technique is versatile and can be used to produce a wide range of components, including **torsion bars**, **transmission shafts**, **flanged shafts**, **thermowells**, **eye bolts**, **headed bolts**, and **tie rods**.

This strategic investment reaffirms Brooks Forgings' commitment to becoming the most versatile manufacturer in the UK.