

## Efficiency benefits obtained by switching from conventional to unique advanced parts forming equipment (Nedschroef)

On 5 April the second of four BCFG meetings scheduled for 2001 was held at Kinnings Marlow, Wednesbury part of Garton Engineering Plc. The well attended meeting heard presentations about the Company's cold forging activities from Sales Manager, Keith Owen and Technical Director, Malcolm Corbett. These stressed the changing nature and economic climate for the manufacture of, particularly automotive components in the UK. Customers today expect quality, quantity and delivery of products at very competitive (world) prices.

To meet the challenge Kinnings Marlow have sought to move away from the production of standard often low value parts. Their policy is to provide the customer base with novel and innovative products which extend and develop the existing range of cold forging expertise and skills.

Typical of the product types produced by Kinnings Marlow are those shown in the figures below.



Special cold formed parts



Cold formed gears and special studs



Special hollow parts



Valve spring retainers

Abilities in tooling development and availability of metalforming expertise is today necessary but not sufficient to ensure market success. Competitiveness requires production capability and the opportunity to achieve a quick response in getting the goods to market. Kinnings Marlow have literally put their investment money where their strategic thinking leads them by recently purchasing a £0.75 m latest state of the art Nedschroef multi station parts former bespoke to meet the Company's own specifications and the increasingly exacting customer demands.



Recognising the absolute need for a "culture" change to maximise the benefits which could be obtained, Kinnings Marlow have made a parallel investment in Finite Element Simulation Software. Acquiring the FEA facility sometime ahead of the Nedschroef arrival, the Company have been able to develop the skills of the workforce in this area of advanced technology and to establish close working relationships with a number of universities.

The benefits which the Company have identified and are beginning to realise through these major investments of both time and money are:

- Reduced lead time from design to volume production
- Quick change tooling
- Longer tool life
- More consistent higher volume repeatability
- Less down time
- Flexibility to work on both solid and hollow components

BCFG members were provided with a tour of the Kinnings Marlow plant including the cold forging, FEA, machining and inspection areas. As summed up by Managing Director, Tim Garton, "This has contributed to enable Kinnings Marlow to enhance their position as one of the leading UK specialist producers of hollow and solid cold forged components producing parts in a wide range of materials."