# Rapid Changeover

#### **The Challenge**

A leading manufacturer of electro-hydraulic servo valves for the aerospace and industrial markets uses advanced CNC machines and a 'flexible manufacturing system' (FMS). This highly specialised market and 'just in time' (JIT) principals demand that components are made in small batches. It seemed inevitable that with the very high precision required, setting times would remain high in proportion to run times.

### **Continuous Improvement releases in-house talent**

Working within the Company's embryonic Continuous Improvement Programme, called: Profit Enhancement Teams; we convened an interdisciplinary team comprising:

senior machinists the tool storesman a production engineer the machine shop supervisor.





Electro-hydraulic Servo Valves for Aerospace & Industry

## Profit Enhancement Teams

### **Techniques Used**

- $\Delta$  A number of charting methods were used to study and analyse the changeover delays.
- $\Delta$  The machinists were taught statistical techniques to allow them to analyse the setting equipment and machine centre performance.
- $\Delta$  Several key mechanical elements were identified as incorrectly supplied or worn out and were replaced.
- $\Delta$  Working with production planning, tool room, tool stores and main stores, all tools were moved to the main stores and the tool stores converted to a precision setting unit.



### **Benefits**

### △ Changeover time reduced from 2 hours to 15 minutes.

- $\Delta$  Mechanical reasons for delays were rectified.
- $\Delta$  Substantial productivity improvement.
- $\Delta$  Huge improvement in changeover methods were developed, culminating in a 'pit stop' approach.
- $\Delta$  Expensive floor area released for high value work.
- $\Delta$  Strengthen team spirit between departments.

We gratefully acknowledge our client's assistance in preparing this case study.

Innovation and Usable Expertise Businesses with Ambitions

